

us5cqeapy

November 16, 2025

```
[ ]: # This Python 3 environment comes with many helpful analytics libraries
      ↳ installed
# It is defined by the kaggle/python Docker image: https://github.com/kaggle/
      ↳ docker-python
# For example, here's several helpful packages to load

import numpy as np # linear algebra
import pandas as pd # data processing, CSV file I/O (e.g. pd.read_csv)

# Input data files are available in the read-only "../input/" directory
# For example, running this (by clicking run or pressing Shift+Enter) will list
      ↳ all files under the input directory

import os
for dirname, _, filenames in os.walk('/content/drive/MyDrive/Brain tumor
      ↳ Detection'):
    for filename in filenames:
        print(os.path.join(dirname, filename))

# You can write up to 20GB to the current directory (/kaggle/working/) that
      ↳ gets preserved as output when you create a version using "Save & Run All"
# You can also write temporary files to /kaggle/temp/, but they won't be saved
      ↳ outside of the current session
```

```
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/8.jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (18).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (11).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (17).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (30).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (23).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (27).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (24).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (28).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (25).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (16).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/image (21).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/no_tumor/1.jpg
```

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (83).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (820).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (82).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (85).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (95).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (90).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (99).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/glioma_tumor/gg (91).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(126).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(123).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (11).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(108).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(109).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(130).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(113).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(104).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (1).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(101).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(134).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(122).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(115).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(127).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(118).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (12).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(111).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(120).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (10).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(119).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(117).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(103).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(110).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(131).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(133).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(121).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(105).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(128).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(124).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(114).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(102).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(107).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(112).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(132).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(100).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(129).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(125).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(106).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(116).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (13).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(158).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(176).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (14).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(185).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (16).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(184).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(149).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(170).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (18).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(174).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(165).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(151).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(142).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(143).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(140).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(163).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(139).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(183).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(148).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(166).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (15).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(138).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(152).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(162).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(150).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(159).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(157).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(144).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(136).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(179).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(182).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(155).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(169).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (141).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (145).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (171).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (181).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (161).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (168).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (177).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (167).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (146).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (147).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (175).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (156).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (17).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (160).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (137).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (172).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (180).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (178).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (135).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (173).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (164).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (153).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (154).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (192).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(204).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(233).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(209).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(207).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(196).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(200).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(231).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(197).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(234).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(219).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(232).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(227).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (22).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(212).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(186).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(223).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(220).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(193).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(188).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (2).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(205).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(195).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(228).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(230).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(218).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(203).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(216).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (19).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(226).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(201).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(202).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(191).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (20).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(208).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (21).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(210).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(235).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(189).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(222).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(206).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(211).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(213).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(229).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(214).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(194).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(225).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(221).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(224).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(215).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(199).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(190).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (23).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (217).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (198).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (187).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (256).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (275).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (252).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (276).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (264).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (236).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (247).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (24).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (257).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (253).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (277).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (262).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (274).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (273).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (249).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (265).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (244).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (240).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (251).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (239).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(250).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (260).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (245).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (243).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (279).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (278).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (271).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (282).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (281).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (259).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (238).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (285).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (261).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (246).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (248).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (263).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (26).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (25).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (280).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (241).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (28).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (254).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (270).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (242).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (272).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (266).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(269).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(267).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(237).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(283).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(258).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(268).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(284).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(255).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (27).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(299).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(316).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(312).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(287).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(295).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(311).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(332).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(305).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(325).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(331).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(298).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(292).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(288).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(327).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(286).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(318).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (321).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (303).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (291).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (323).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (324).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (314).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (297).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (32).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (328).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (322).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (300).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (294).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (313).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (326).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (334).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (296).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (33).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (304).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (320).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (30).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (308).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (317).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (293).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (290).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (289).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(310).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (31).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(329).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(335).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(307).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (3).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(319).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(330).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(336).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(309).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(301).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (29).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(333).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(302).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(315).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(306).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(345).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(383).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(341).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(340).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(353).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (35).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(337).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(361).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(380).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(348).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(370).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(377).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (38).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(359).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (36).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(373).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(385).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(368).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(355).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(376).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(351).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(371).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(367).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(375).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(344).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(356).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(360).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(369).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(379).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(346).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(384).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(372).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(382).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(364).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(352).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(342).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(349).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(343).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(354).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(363).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(365).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(378).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(347).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(362).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(366).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(350).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (34).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(386).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(338).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (37).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(358).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(387).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(339).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(374).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(381).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(357).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(438).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(411).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (4).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(431).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(420).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(426).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(423).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(435).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(388).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(430).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(436).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(412).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(403).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(434).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(396).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(389).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(398).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(404).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(407).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(422).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(421).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(437).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(417).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(408).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(406).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(416).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(419).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(418).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(399).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (409).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (394).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (41).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (40).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (428).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (393).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (401).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (429).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (410).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (414).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (433).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (395).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (405).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (39).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (415).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (392).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (43).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (425).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (400).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (413).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (42).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (397).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (432).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (391).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (402).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (427).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(424).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(390).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(480).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (45).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(476).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(488).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(489).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(468).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(470).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (47).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(466).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(454).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(463).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(465).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(487).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(462).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(475).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(452).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(440).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(472).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(453).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(464).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(485).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(449).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(477).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(474).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(471).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(439).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(444).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(455).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(478).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(459).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(484).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(479).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(451).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(450).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(486).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (48).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(447).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(467).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(473).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(456).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(441).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(483).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(448).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(469).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(481).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(446).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(442).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(443).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (458).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (482).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (44).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (457).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (460).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (445).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (461).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (46).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (517).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (519).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (503).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (514).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (532).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (537).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (534).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (511).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (535).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (525).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (52).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (507).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (509).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (495).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (529).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (518).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (502).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(498).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(531).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(505).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(530).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(506).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(510).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(500).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(528).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(527).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(492).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(516).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(520).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(491).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(508).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(504).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(512).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (5).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(536).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(526).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(501).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(515).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (51).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(533).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(522).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(496).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(524).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(521).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(494).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (50).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (53).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(497).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(523).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(490).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(513).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (49).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(493).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(499).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(546).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(585).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(538).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(565).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(549).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(562).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(567).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(552).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(561).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(571).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(568).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(551).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(564).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(540).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (576).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (545).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (569).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (55).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (573).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (581).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (547).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (57).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (543).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (579).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (557).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (558).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (572).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (556).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (563).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (54).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (587).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (582).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (580).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (58).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (550).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (586).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (566).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (56).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (575).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (577).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(559).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(548).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(541).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(560).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(570).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(555).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(539).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(554).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(584).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(542).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(583).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(553).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(574).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(544).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(578).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(600).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(605).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(597).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(612).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(594).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(628).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(596).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (62).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (63).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(633).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(611).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(626).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(637).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(603).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(613).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (61).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(595).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(602).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(638).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(627).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(606).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(632).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(636).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(635).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(622).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(619).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(589).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(598).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(615).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(631).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(620).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(590).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(617).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(616).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(618).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (599).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (625).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (624).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (604).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (614).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (630).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (59).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (60).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (593).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (634).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (588).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (591).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (621).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (629).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (6).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (592).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (623).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (610).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (607).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (601).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (609).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (608).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (666).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (654).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (671).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(646).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(659).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(682).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(644).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(673).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(677).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(687).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(662).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(660).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(668).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(657).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(647).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(656).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(678).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(669).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(643).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(665).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (67).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(651).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(663).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(655).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(672).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(686).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (64).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(642).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(685).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(650).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (65).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(652).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(679).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(649).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (68).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(661).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(667).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(640).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (66).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(683).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(675).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(680).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(688).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(664).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(676).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(641).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(684).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(648).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(653).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(658).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(681).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(674).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(670).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(645).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(639).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(728).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(717).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(726).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(694).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(722).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(691).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(708).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (71).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(720).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (69).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(699).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(696).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(698).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(730).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(702).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(690).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(713).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(715).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(701).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(695).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(700).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(736).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(716).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(729).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (693).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (714).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (710).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (721).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (723).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (70).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (732).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (733).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (735).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (692).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (712).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (731).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (689).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (703).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (734).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (709).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (707).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (73).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (718).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (719).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (725).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (706).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (72).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (737).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (697).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(727).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(704).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(738).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (7).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(711).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(705).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(724).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (78).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(746).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(781).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(785).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(751).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(759).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(742).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(786).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(769).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(778).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(773).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(777).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(761).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (76).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(768).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(750).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(760).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(776).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p

(784).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (787).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (747).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (744).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (741).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (771).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (782).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (756).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (743).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (748).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (740).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (745).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (749).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (765).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (772).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (775).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (788).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (763).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (757).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (752).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (789).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (753).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (74).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (764).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
 (767).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (75).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(780).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(774).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(766).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(783).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(755).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(739).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(758).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(762).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(770).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(779).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(754).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (77).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(799).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (88).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(790).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(809).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(812).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(811).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (9).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(817).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(803).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (8).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(824).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(815).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(814).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (93).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(804).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (86).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(813).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(801).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(827).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (92).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(825).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(805).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (87).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(795).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(792).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(818).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (83).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (79).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (89).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(794).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (90).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(808).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (84).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(806).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(823).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (80).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(797).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(798).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(802).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(807).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(816).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(819).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (91).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (94).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (81).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(796).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(810).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (82).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (85).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(822).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(821).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(820).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(826).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(793).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(791).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p
(800).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (95).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (98).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (99).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (97).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/pituitary_tumor/p (96).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(114).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(109).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(113).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(112).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(107).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(11).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(100).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(110).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(123).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(117).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m

(125).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(121).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(119).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(108).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(106).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(103).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(104).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(116).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(12).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(111).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(124).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(120).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(10).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(105).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(115).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(118).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(101).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(122).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(102).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(159).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(147).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(126).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(146).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(128).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m

(149).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(165).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(137).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(16).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(145).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(148).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(161).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(163).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(138).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(139).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(166).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(15).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(144).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(170).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(153).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(133).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(129).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(143).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(171).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(134).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(142).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(155).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(160).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(167).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m

(141).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(14).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(136).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(132).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(158).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(154).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(152).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(127).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(150).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(157).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(168).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(169).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(131).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(164).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(151).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(130).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(13).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(135).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(17).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(140).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(156).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(162).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(185).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(21).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m

(36).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (180).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (37).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (184).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (177).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (25).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (20).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (182).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (35).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (187).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (30).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (173).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (32).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (186).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (38).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (172).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (19).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (3).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (23).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (179).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (24).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (2).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (176).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (29).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (196).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m

(175).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(199).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(33).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(188).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(194).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(27).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(39).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(190).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(26).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(18).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(193).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(198).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(192).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(189).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(34).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(191).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(183).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(197).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(22).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(201).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(195).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(28).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(181).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(178).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m

(200).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (174).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (4).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (31).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (85).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (64).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (78).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (86).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (46).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (47).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (84).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (68).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (77).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (58).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (44).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (88).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (63).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (70).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (42).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (89).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (9).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (76).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (54).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (43).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (73).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m

(51).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (87).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (6).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (79).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (82).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (53).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (80).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (69).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (65).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (52).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (56).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (62).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (41).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (83).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (61).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (45).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (66).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (40).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (59).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (55).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (75).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (60).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (71).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (50).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
 (81).jpg

/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(57).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(72).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(48).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(49).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (7).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(74).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (8).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m (5).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(67).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(137).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(117).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(112).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(12).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(120).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(134).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(136).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(130).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(92).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(108).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(131).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(140).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(104).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(114).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(14).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(139).jpg
/content/drive/MyDrive/Brain tumor

Detection/Training/meningioma_tumor/m1(10).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(110).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(106).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(121).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(133).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(101).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(90).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(94).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(123).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(118).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(127).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(98).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(99).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(122).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(93).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(124).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(102).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(107).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(13).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(97).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(129).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(141).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(103).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(125).jpg
/content/drive/MyDrive/Brain tumor

Detection/Training/meningioma_tumor/m1(105).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(95).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(132).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(126).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(135).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(11).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(128).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(113).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(91).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(100).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m
(96).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(111).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(119).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(109).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(116).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(138).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(183).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(160).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(148).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(172).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(147).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(146).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(188).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(161).jpg
/content/drive/MyDrive/Brain tumor

Detection/Training/meningioma_tumor/m1(155).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(171).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(169).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(170).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(17).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(186).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(177).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(152).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(16).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(143).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(159).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(15).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(178).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(187).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(166).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(142).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(182).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(167).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(162).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(19).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(157).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(18).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(168).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(184).jpg
/content/drive/MyDrive/Brain tumor

Detection/Training/meningioma_tumor/m1(149).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(174).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(145).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(192).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(181).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(156).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(173).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(144).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(150).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(189).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(165).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(158).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(151).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(175).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(179).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(154).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(190).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(191).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(176).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(153).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(185).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(180).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(163).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(27).jpg
/content/drive/MyDrive/Brain tumor

Detection/Training/meningioma_tumor/m1(28).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(195).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(33).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(3).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(43).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(41).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(31).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(60).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(2).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(58).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(34).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(21).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(202).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(46).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(29).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(59).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(198).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(38).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(30).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(54).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(52).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(20).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(6).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(23).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(25).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(39).jpg

/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(24).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(32).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(45).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(51).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(42).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(47).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(26).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(193).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(44).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(50).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(48).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(5).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(201).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(55).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(37).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(199).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(200).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(61).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(35).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(57).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(49).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(4).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(36).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(53).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(197).jpg

/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(194).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(22).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(56).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(40).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(196).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(86).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(11).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(92).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(7).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(71).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(74).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(62).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(90).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(102).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(75).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(112).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(87).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(67).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(99).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(66).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(109).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(96).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(72).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(105).jpg
/content/drive/MyDrive/Brain tumor

Detection/Training/meningioma_tumor/m1(81).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(89).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(101).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(70).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(111).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(69).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(97).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(88).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(83).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(68).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(78).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(82).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(73).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(103).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(84).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(9).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(95).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(107).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m1(8).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(91).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(104).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(79).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(64).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(85).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(76).jpg
/content/drive/MyDrive/Brain tumor

Detection/Training/meningioma_tumor/m1(77).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(106).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(98).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(110).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(94).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(93).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(65).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(108).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(100).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(63).jpg
/content/drive/MyDrive/Brain tumor
Detection/Training/meningioma_tumor/m1(80).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(10).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(1).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(122).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(139).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(118).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(152).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(157).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(142).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(133).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(134).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(127).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(129).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(163).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2

(155).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(154).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(132).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(150).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(140).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(125).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(147).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(138).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(114).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(128).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(124).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(141).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(149).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(115).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(14).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(15).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(145).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(156).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(137).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(159).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(146).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(160).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(119).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(162).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2

(144).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(16).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(161).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(121).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(130).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(126).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(113).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(158).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(13).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(120).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(135).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(136).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(151).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(123).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(12).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(117).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(148).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(153).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(116).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(143).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(131).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(25).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(49).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(20).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2

(44).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(164).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(174).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(171).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(48).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(23).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(34).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(22).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(53).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(47).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(24).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(27).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(32).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(5).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(33).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(51).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(28).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(45).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(19).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(36).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(46).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(169).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(42).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(167).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2

(3).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(21).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(38).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(41).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(39).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(40).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(50).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(177).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(17).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(175).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(26).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(30).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(165).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(18).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(54).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(166).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(52).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(35).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(176).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(37).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(172).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(43).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(4).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(170).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2

(2).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(31).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(29).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(173).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(168).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(96).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(55).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(85).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(83).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(58).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(93).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(73).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(75).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(62).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(74).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(60).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(80).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(8).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(91).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(103).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(59).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(84).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(61).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(94).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2

(78).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(57).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(66).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(87).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(90).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(67).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(10).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(9).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(1).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(97).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(102).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(6).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(70).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(56).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(95).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(99).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(101).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(86).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(65).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(77).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(88).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(64).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(79).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(72).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2

(7).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(68).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(63).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(98).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(71).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(89).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(81).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(92).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(69).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(100).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(104).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(82).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m2
(76).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(125).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(129).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(121).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(155).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(11).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(148).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(136).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(134).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(126).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(107).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(149).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(15).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(13).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(119).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(109).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(150).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(128).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(108).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(143).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(152).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(110).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(146).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(124).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(14).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(153).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(115).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(111).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(139).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(114).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(113).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(12).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(131).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(140).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(147).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(142).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(133).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(117).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(122).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(141).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(116).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(118).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(106).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(145).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(154).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(112).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(120).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(151).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(105).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(130).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(132).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(137).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(123).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(138).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(135).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(127).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(161).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(162).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(185).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(175).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(179).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(206).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(195).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(201).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(156).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(196).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(205).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(198).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(197).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(200).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(174).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(18).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(2).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(166).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(163).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(159).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(188).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(187).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(173).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(165).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(164).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(181).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(192).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(170).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(186).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(171).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(202).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(16).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(190).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(20).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(157).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(180).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(167).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(191).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(193).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(203).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(169).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(177).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(189).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(182).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(176).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(194).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(199).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(17).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(160).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(19).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(158).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(168).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(178).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(172).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(184).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(183).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(204).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(219).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(26).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(231).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(24).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(230).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(237).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(239).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(210).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(234).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(21).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(224).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(222).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(246).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(212).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(207).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(22).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(27).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(217).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(214).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(228).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(216).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(226).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(240).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(233).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(227).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(28).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(241).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(213).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(242).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(221).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(244).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(247).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(229).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(236).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(232).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(218).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(25).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(33).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(215).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(3).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(245).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(225).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(208).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(211).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(243).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(30).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(23).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(32).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(235).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(220).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(34).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(29).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(31).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(238).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(223).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(209).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(81).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(84).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(75).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(51).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(5).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(68).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(8).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(59).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(70).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(71).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(79).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(36).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(49).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(57).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(82).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(44).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(62).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(53).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(76).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(40).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(72).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(74).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(61).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(85).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(6).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(46).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(60).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(45).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(80).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(78).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(69).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(65).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(52).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(50).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
(77).jpg
/content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(55).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (4).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (66).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (58).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (64).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (43).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (56).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (41).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (83).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (7).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (67).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (63).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (73).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (48).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (54).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (39).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (42).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (38).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (37).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (47).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (35).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (87).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (9).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (98).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3

(94).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (93).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (95).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (99).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (88).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (92).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (96).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (97).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (90).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (91).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (86).jpg
 /content/drive/MyDrive/Brain tumor Detection/Training/meningioma_tumor/m3
 (89).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(23).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(112).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(17).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(21).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(100).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(109).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(107).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(10).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(13).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(123).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(15).jpg
 /content/drive/MyDrive/Brain tumor
 Detection/Testing/meningioma_tumor/image(12).jpg
 /content/drive/MyDrive/Brain tumor

Detection/Testing/meningioma_tumor/image(20).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(2).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(26).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(22).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(118).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(113).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(120).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(27).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(25).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(125).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(1).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(121).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(11).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(102).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(18).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(19).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(14).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(16).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(127).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(124).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(106).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(24).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(126).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(34).jpg
/content/drive/MyDrive/Brain tumor

Detection/Testing/meningioma_tumor/image(49).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(7).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(63).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(67).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(6).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(59).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(31).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(55).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(32).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(30).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(77).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(73).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(71).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(28).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(44).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(64).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(72).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(46).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(41).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(43).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(54).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(57).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(29).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(51).jpg
/content/drive/MyDrive/Brain tumor

Detection/Testing/meningioma_tumor/image(3).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(74).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(60).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(5).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(61).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(38).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(68).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(33).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(70).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(45).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(35).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(40).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(75).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(52).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(39).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(69).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(36).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(65).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(50).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(76).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(48).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(37).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(4).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(58).jpg
/content/drive/MyDrive/Brain tumor

Detection/Testing/meningioma_tumor/image(62).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(56).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(42).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(66).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(53).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(47).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(96).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(84).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(92).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(89).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(94).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(8).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(79).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(81).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(88).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(98).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(83).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(78).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(95).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(99).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(9).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(90).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(87).jpg
/content/drive/MyDrive/Brain tumor Detection/Testing/meningioma_tumor/image.jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/meningioma_tumor/image(82).jpg

[illegible]

[illegible]

Detection/Testing/pituitary_tumor/image(31).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(53).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(47).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(34).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(41).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(20).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(46).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(11).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(35).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(15).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(48).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(45).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(5).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(37).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(38).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(30).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(3).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(19).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(52).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(21).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(49).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(18).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(51).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(36).jpg
/content/drive/MyDrive/Brain tumor

Detection/Testing/pituitary_tumor/image(22).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(42).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(13).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(27).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(43).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(44).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(57).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(70).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(78).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(77).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(87).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(67).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(64).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(68).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(7).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(6).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(88).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(63).jpg
/content/drive/MyDrive/Brain tumor Detection/Testing/pituitary_tumor/image.jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(93).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(54).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(79).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(91).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(85).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(61).jpg

/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(86).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(97).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(98).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(69).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(76).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(8).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(60).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(81).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(94).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(96).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(56).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(65).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(92).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(89).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(66).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(82).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(90).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(55).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(73).jpg
/content/drive/MyDrive/Brain tumor
Detection/Testing/pituitary_tumor/image(95).jpg

```
[ ]: from google.colab import drive  
drive.mount('/content/drive')
```

Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount=True).

```
[ ]: import keras
from keras.models import Sequential
from keras.layers import Conv2D, Flatten, Dense, MaxPooling2D, Dropout
from sklearn.metrics import accuracy_score
```

```
[ ]: import ipywidgets as widgets
import io
from PIL import Image
import tqdm
from sklearn.model_selection import train_test_split
import cv2
from sklearn.utils import shuffle
import tensorflow as tf
```

FOLDER PATH

```
[ ]: X_train = []
Y_train = []
image_size = 150
labels = ['glioma_tumor', 'meningioma_tumor', 'no_tumor', 'pituitary_tumor']
for i in labels:
    folderPath = os.path.join('/content/drive/MyDrive/Brain tumor Detection/
↳Training', i)
    for j in os.listdir(folderPath):
        imgPath = os.path.join(folderPath, j)
        img = cv2.imread(imgPath)
        if img is not None: # Check if the image was loaded successfully
            img = cv2.resize(img, (image_size, image_size))
            X_train.append(img)
            Y_train.append(i)
        else:
            print(f"Warning: Could not load image {imgPath}")

for i in labels:
    folderPath = os.path.join('/content/drive/MyDrive/Brain tumor Detection/
↳Testing', i)
    for j in os.listdir(folderPath):
        imgPath = os.path.join(folderPath, j)
        img = cv2.imread(imgPath)
        if img is not None: # Check if the image was loaded successfully
            img = cv2.resize(img, (image_size, image_size))
            X_train.append(img)
            Y_train.append(i)
        else:
            print(f"Warning: Could not load image {imgPath}")
```

```
X_train = np.array(X_train)
Y_train = np.array(Y_train)
```

Warning: Could not load image /content/drive/MyDrive/Brain tumor Detection/Testing/glioma_tumor/image(1).eps
Warning: Could not load image /content/drive/MyDrive/Brain tumor Detection/Testing/glioma_tumor/image(14).jpg
Warning: Could not load image /content/drive/MyDrive/Brain tumor Detection/Testing/meningioma_tumor/image(1).eps
Warning: Could not load image /content/drive/MyDrive/Brain tumor Detection/Testing/meningioma_tumor/tumor_detection_preview.eps
Warning: Could not load image /content/drive/MyDrive/Brain tumor Detection/Testing/no_tumor/image(100).eps
Warning: Could not load image /content/drive/MyDrive/Brain tumor Detection/Testing/no_tumor/tumor_detection_preview.eps

```
[ ]: X_train,Y_train = shuffle(X_train,Y_train,random_state=101)
X_train.shape
```

```
[ ]: (3263, 150, 150, 3)
```

Train test split

```
[ ]: X_train,X_test,y_train,y_test = train_test_split(X_train,Y_train,test_size=0.
↪1,random_state=101)
```

```
[ ]: y_train_new = []
for i in y_train:
    y_train_new.append(labels.index(i))
y_train=y_train_new
y_train = tf.keras.utils.to_categorical(y_train)

y_test_new = []
for i in y_test:
    y_test_new.append(labels.index(i))
y_test=y_test_new
y_test = tf.keras.utils.to_categorical(y_test)
```

```
y_train_new = [] for i in y_train: y_train_new.append(labels.index(i)) y_train=y_train_new
y_train = tf.keras.utils.to_categorical(y_train)
```

```
y_test_new = [] for i in y_test: y_test_new.append(labels.index(i)) y_test=y_test_new y_test
= tf.keras.utils.to_categorical(y_test)
```

Convolutional Neural Network

```
[ ]: from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Conv2D, MaxPooling2D, Flatten, Dense,
↪Dropout
```

```

from tensorflow.keras.optimizers import Adam
from sklearn.metrics import classification_report
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

# Model definition
model = Sequential()
model.add(Conv2D(32, (3, 3), activation='relu', input_shape=(150, 150, 3)))
model.add(Conv2D(64, (3, 3), activation='relu'))
model.add(MaxPooling2D(2, 2))
model.add(Dropout(0.3))
model.add(Conv2D(64, (3, 3), activation='relu'))
model.add(Conv2D(64, (3, 3), activation='relu'))
model.add(Dropout(0.3))
model.add(MaxPooling2D(2, 2))
model.add(Dropout(0.3))
model.add(Conv2D(128, (3, 3), activation='relu'))
model.add(Conv2D(128, (3, 3), activation='relu'))
model.add(Conv2D(128, (3, 3), activation='relu'))
model.add(MaxPooling2D(2, 2))
model.add(Dropout(0.3))
model.add(Conv2D(128, (3, 3), activation='relu'))
model.add(Conv2D(256, (3, 3), activation='relu'))
model.add(MaxPooling2D(2, 2))
model.add(Dropout(0.3))
model.add(Flatten())
model.add(Dense(512, activation='relu'))
model.add(Dense(512, activation='relu'))
model.add(Dropout(0.3))
model.add(Dense(4, activation='softmax'))

# Compile the model
model.compile(loss='categorical_crossentropy', optimizer=Adam(),
              metrics=['accuracy'])

# Train the model
history = model.fit(X_train, y_train, epochs=10, validation_split=0.1)

# Plot accuracy
acc = history.history['accuracy']
val_acc = history.history['val_accuracy']
epochs = range(len(acc))
plt.figure(figsize=(14, 7))
plt.plot(epochs, acc, 'r', label="Training Accuracy")
plt.plot(epochs, val_acc, 'b', label="Validation Accuracy")
plt.title("Training and Validation Accuracy")

```

```

plt.legend(loc='upper left')
plt.show()

# Plot loss
loss = history.history['loss']
val_loss = history.history['val_loss']
epochs = range(len(loss))
plt.figure(figsize=(14, 7))
plt.plot(epochs, loss, 'r', label="Training Loss")
plt.plot(epochs, val_loss, 'b', label="Validation Loss")
plt.title("Training and Validation Loss")
plt.legend(loc='upper left')
plt.show()

# Predict on test data
y_pred = model.predict(X_test)
y_pred_classes = np.argmax(y_pred, axis=1)
y_true = np.argmax(y_test, axis=1)

# Print classification report
from sklearn.metrics import classification_report
print("Classification Report:")
print(classification_report(y_true, y_pred_classes))

# Get final training metrics from history
final_train_accuracy = history.history['accuracy'][-1]
final_train_loss = history.history['loss'][-1]

```

/usr/local/lib/python3.11/dist-packages/keras/src/layers/convolutional/base_conv.py:107: UserWarning: Do not pass an `input_shape`/`input_dim` argument to a layer. When using Sequential models, prefer using an `Input(shape)` object as the first layer in the model instead.

```
super().__init__(activity_regularizer=activity_regularizer, **kwargs)
```

Epoch 1/10

83/83 322s 4s/step -

accuracy: 0.2703 - loss: 3.3110 - val_accuracy: 0.3469 - val_loss: 1.3446

Epoch 2/10

83/83 322s 4s/step -

accuracy: 0.4232 - loss: 1.2766 - val_accuracy: 0.5714 - val_loss: 1.0046

Epoch 3/10

83/83 325s 4s/step -

accuracy: 0.6016 - loss: 0.9454 - val_accuracy: 0.5476 - val_loss: 0.9615

Epoch 4/10

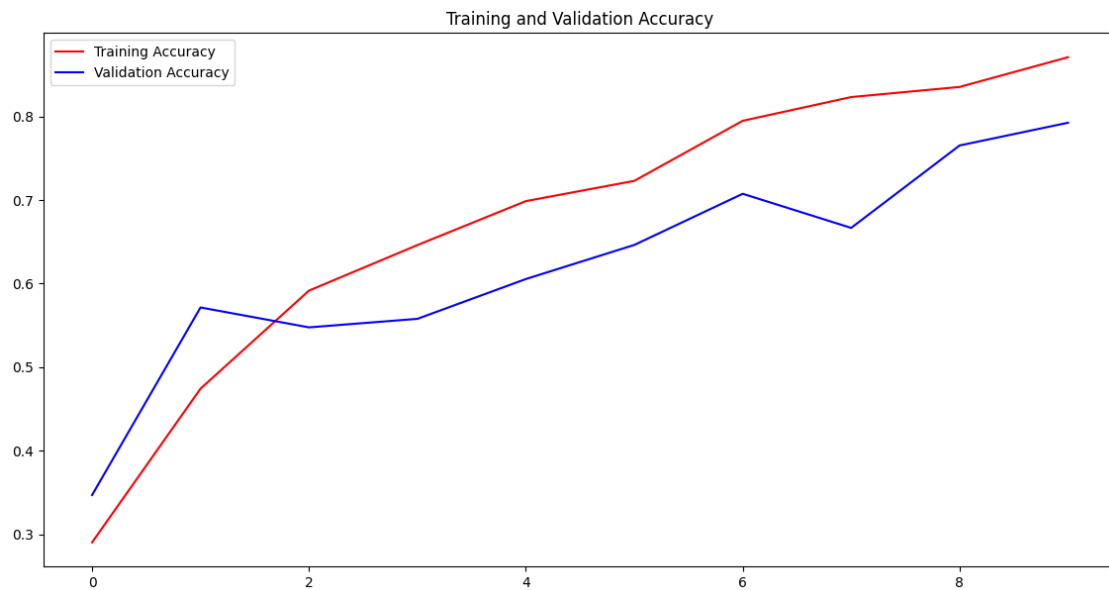
83/83 378s 4s/step -

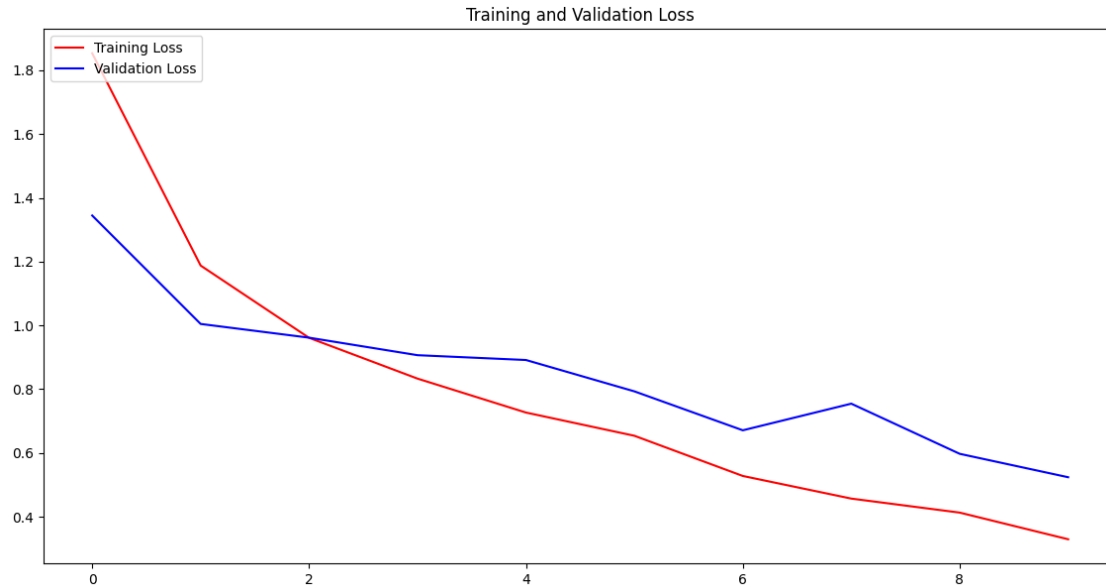
accuracy: 0.6299 - loss: 0.8671 - val_accuracy: 0.5578 - val_loss: 0.9066

Epoch 5/10

83/83 321s 4s/step -

accuracy: 0.6833 - loss: 0.7265 - val_accuracy: 0.6054 - val_loss: 0.8915
Epoch 6/10
83/83 321s 4s/step -
accuracy: 0.7260 - loss: 0.6465 - val_accuracy: 0.6463 - val_loss: 0.7932
Epoch 7/10
83/83 321s 4s/step -
accuracy: 0.7822 - loss: 0.5446 - val_accuracy: 0.7075 - val_loss: 0.6710
Epoch 8/10
83/83 322s 4s/step -
accuracy: 0.8347 - loss: 0.4453 - val_accuracy: 0.6667 - val_loss: 0.7546
Epoch 9/10
83/83 322s 4s/step -
accuracy: 0.8443 - loss: 0.3897 - val_accuracy: 0.7653 - val_loss: 0.5973
Epoch 10/10
83/83 322s 4s/step -
accuracy: 0.8721 - loss: 0.3294 - val_accuracy: 0.7925 - val_loss: 0.5239





11/11 11s 982ms/step

Classification Report:

| | precision | recall | f1-score | support |
|--------------|-----------|--------|----------|---------|
| 0 | 0.80 | 0.83 | 0.81 | 89 |
| 1 | 0.84 | 0.72 | 0.78 | 90 |
| 2 | 0.82 | 0.85 | 0.84 | 55 |
| 3 | 0.92 | 0.99 | 0.95 | 93 |
| accuracy | | | 0.85 | 327 |
| macro avg | 0.85 | 0.85 | 0.85 | 327 |
| weighted avg | 0.85 | 0.85 | 0.85 | 327 |

```
[ ]: final_train_accuracy = history.history['accuracy'][-1]
final_train_loss = history.history['loss'][-1]

# Print final training accuracy and loss
print(f"\n Final Training Accuracy: {final_train_accuracy * 100:.2f}%")
print(f" Final Training Loss: {final_train_loss:.4f}")
```

Final Training Accuracy: 87.09%

Final Training Loss: 0.3293

```
[ ]: from sklearn.metrics import confusion_matrix
import seaborn as sns
import matplotlib.pyplot as plt
```

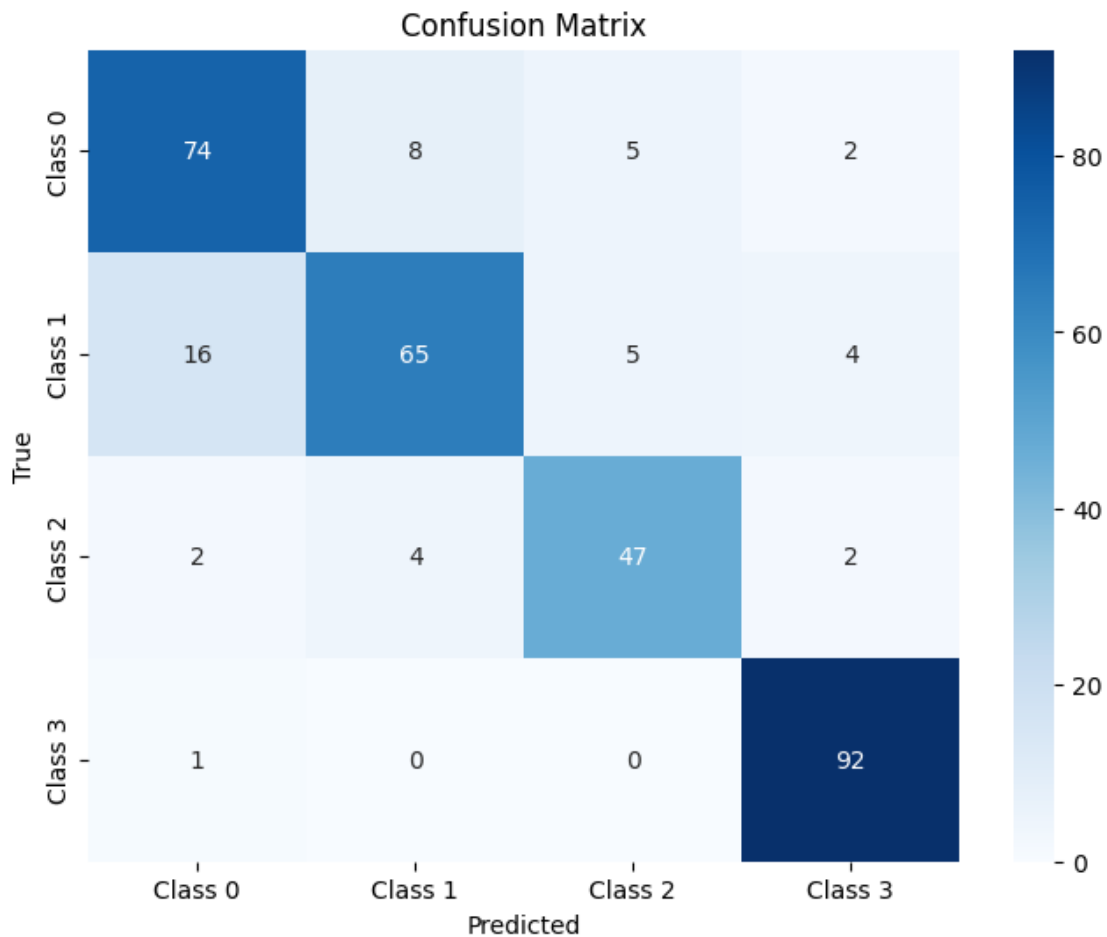
```

# Compute confusion matrix
cm = confusion_matrix(y_true, y_pred_classes)

# If you have class names, define them like this:
class_names = ['Class 0', 'Class 1', 'Class 2', 'Class 3'] # Replace with your
↳ actual class labels

# Plot confusion matrix
plt.figure(figsize=(8, 6))
sns.heatmap(cm, annot=True, fmt='d', cmap='Blues', xticklabels=class_names,
↳ yticklabels=class_names)
plt.xlabel('Predicted')
plt.ylabel('True')
plt.title('Confusion Matrix')
plt.show()

```



LSTM + RNN (proposed model)


```
[ ]: import numpy as np
import tensorflow as tf
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.metrics import classification_report, confusion_matrix
from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import SimpleRNN, LSTM, Dense, Dropout
from tensorflow.keras.optimizers import Adam

# 1. Simulated data (replace with your actual dataset)
X = np.random.rand(1000, 100, 10) # 1000 samples, 100 timesteps, 10 features
y = np.random.randint(0, 2, 1000) # Binary labels (0 or 1)

# 2. Define the LSTM + RNN model
model = Sequential([
    SimpleRNN(64, return_sequences=True, input_shape=(100, 10)),
    Dropout(0.3),
    LSTM(64),
    Dropout(0.3),
    Dense(1, activation='sigmoid')
])

# 3. Compile model
model.compile(optimizer=Adam(learning_rate=0.001),
              loss='binary_crossentropy',
              metrics=['accuracy'])

# 4. Model summary
model.summary()

# 5. Train the model
history = model.fit(X, y, epochs=30, batch_size=32, validation_split=0.2)

# 6. Evaluate on full data (for demo)
loss, accuracy = model.evaluate(X, y, verbose=0)
print(f"\n Final Training Accuracy: {accuracy:.4f}")
print(f" Final Training Loss: {loss:.4f}")

# 7. Plot Accuracy and Loss
plt.figure(figsize=(12, 5))

# Accuracy
plt.subplot(1, 2, 1)
plt.plot(history.history['accuracy'], label='Train Accuracy')
plt.plot(history.history['val_accuracy'], label='Val Accuracy')
plt.title('Model Accuracy')
plt.xlabel('Epoch')
```

```

plt.ylabel('Accuracy')
plt.legend()
plt.grid(True)

# Loss
plt.subplot(1, 2, 2)
plt.plot(history.history['loss'], label='Train Loss')
plt.plot(history.history['val_loss'], label='Val Loss')
plt.title('Model Loss')
plt.xlabel('Epoch')
plt.ylabel('Loss')
plt.legend()
plt.grid(True)

plt.tight_layout()
plt.show()

# 8. Predictions
y_pred_prob = model.predict(X)
y_pred = (y_pred_prob > 0.5).astype("int32")

# 9. Classification report
print("\n Classification Report:")
print(classification_report(y, y_pred))

# 10. Confusion matrix
cm = confusion_matrix(y, y_pred)

plt.figure(figsize=(6, 5))
sns.heatmap(cm, annot=True, fmt="d", cmap="Greens",
            xticklabels=['Pred 0', 'Pred 1'],
            yticklabels=['True 0', 'True 1'])
plt.title("Confusion Matrix")
plt.xlabel("Predicted Label")
plt.ylabel("True Label")
plt.show()

```

```

/usr/local/lib/python3.11/dist-packages/keras/src/layers/rnn/rnn.py:200:
UserWarning: Do not pass an `input_shape`/`input_dim` argument to a layer. When
using Sequential models, prefer using an `Input(shape)` object as the first
layer in the model instead.

```

```

    super().__init__(**kwargs)

```

```

Model: "sequential_1"

```

Layer (type)

Output Shape

Param #

| | | |
|------------------------|-----------------|--------|
| simple_rnn (SimpleRNN) | (None, 100, 64) | 4,800 |
| dropout_6 (Dropout) | (None, 100, 64) | 0 |
| lstm (LSTM) | (None, 64) | 33,024 |
| dropout_7 (Dropout) | (None, 64) | 0 |
| dense_3 (Dense) | (None, 1) | 65 |

Total params: 37,889 (148.00 KB)

Trainable params: 37,889 (148.00 KB)

Non-trainable params: 0 (0.00 B)

Epoch 1/30

25/25 3s 54ms/step -
accuracy: 0.5171 - loss: 0.7026 - val_accuracy: 0.4950 - val_loss: 0.7061

Epoch 2/30

25/25 2s 42ms/step -
accuracy: 0.5132 - loss: 0.6958 - val_accuracy: 0.4950 - val_loss: 0.7164

Epoch 3/30

25/25 2s 58ms/step -
accuracy: 0.5438 - loss: 0.6875 - val_accuracy: 0.4950 - val_loss: 0.6941

Epoch 4/30

25/25 1s 59ms/step -
accuracy: 0.5479 - loss: 0.6815 - val_accuracy: 0.4900 - val_loss: 0.6979

Epoch 5/30

25/25 1s 43ms/step -
accuracy: 0.6042 - loss: 0.6680 - val_accuracy: 0.5400 - val_loss: 0.6922

Epoch 6/30

25/25 1s 42ms/step -
accuracy: 0.5632 - loss: 0.6705 - val_accuracy: 0.5100 - val_loss: 0.6990

Epoch 7/30

25/25 1s 43ms/step -
accuracy: 0.6274 - loss: 0.6513 - val_accuracy: 0.5500 - val_loss: 0.6887

Epoch 8/30

25/25 1s 42ms/step -
accuracy: 0.6178 - loss: 0.6552 - val_accuracy: 0.5400 - val_loss: 0.7005

Epoch 9/30

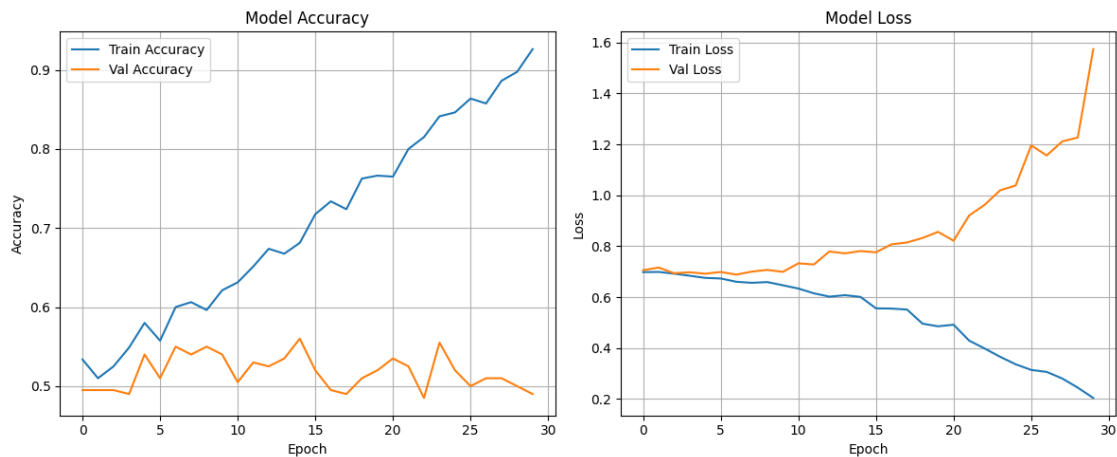
25/25 1s 42ms/step -
accuracy: 0.5774 - loss: 0.6683 - val_accuracy: 0.5500 - val_loss: 0.7073

Epoch 10/30

25/25 1s 42ms/step -
 accuracy: 0.6349 - loss: 0.6346 - val_accuracy: 0.5400 - val_loss: 0.6995
 Epoch 11/30
 25/25 1s 42ms/step -
 accuracy: 0.6187 - loss: 0.6330 - val_accuracy: 0.5050 - val_loss: 0.7330
 Epoch 12/30
 25/25 1s 42ms/step -
 accuracy: 0.6524 - loss: 0.6120 - val_accuracy: 0.5300 - val_loss: 0.7285
 Epoch 13/30
 25/25 2s 61ms/step -
 accuracy: 0.7050 - loss: 0.5841 - val_accuracy: 0.5250 - val_loss: 0.7795
 Epoch 14/30
 25/25 1s 55ms/step -
 accuracy: 0.6952 - loss: 0.5771 - val_accuracy: 0.5350 - val_loss: 0.7722
 Epoch 15/30
 25/25 2s 41ms/step -
 accuracy: 0.6537 - loss: 0.6071 - val_accuracy: 0.5600 - val_loss: 0.7813
 Epoch 16/30
 25/25 1s 40ms/step -
 accuracy: 0.7147 - loss: 0.5658 - val_accuracy: 0.5200 - val_loss: 0.7763
 Epoch 17/30
 25/25 1s 42ms/step -
 accuracy: 0.7536 - loss: 0.5207 - val_accuracy: 0.4950 - val_loss: 0.8076
 Epoch 18/30
 25/25 1s 42ms/step -
 accuracy: 0.7254 - loss: 0.5529 - val_accuracy: 0.4900 - val_loss: 0.8150
 Epoch 19/30
 25/25 1s 43ms/step -
 accuracy: 0.7758 - loss: 0.4803 - val_accuracy: 0.5100 - val_loss: 0.8326
 Epoch 20/30
 25/25 1s 40ms/step -
 accuracy: 0.7870 - loss: 0.4635 - val_accuracy: 0.5200 - val_loss: 0.8565
 Epoch 21/30
 25/25 1s 41ms/step -
 accuracy: 0.7771 - loss: 0.4753 - val_accuracy: 0.5350 - val_loss: 0.8218
 Epoch 22/30
 25/25 1s 52ms/step -
 accuracy: 0.8058 - loss: 0.4355 - val_accuracy: 0.5250 - val_loss: 0.9207
 Epoch 23/30
 25/25 2s 66ms/step -
 accuracy: 0.8165 - loss: 0.3806 - val_accuracy: 0.4850 - val_loss: 0.9628
 Epoch 24/30
 25/25 1s 42ms/step -
 accuracy: 0.8448 - loss: 0.3631 - val_accuracy: 0.5550 - val_loss: 1.0197
 Epoch 25/30
 25/25 1s 43ms/step -
 accuracy: 0.8545 - loss: 0.3196 - val_accuracy: 0.5200 - val_loss: 1.0386
 Epoch 26/30

25/25 1s 43ms/step -
accuracy: 0.8543 - loss: 0.3177 - val_accuracy: 0.5000 - val_loss: 1.1963
Epoch 27/30
25/25 1s 43ms/step -
accuracy: 0.8654 - loss: 0.2947 - val_accuracy: 0.5100 - val_loss: 1.1566
Epoch 28/30
25/25 1s 41ms/step -
accuracy: 0.8973 - loss: 0.2661 - val_accuracy: 0.5100 - val_loss: 1.2118
Epoch 29/30
25/25 1s 42ms/step -
accuracy: 0.9086 - loss: 0.2312 - val_accuracy: 0.5000 - val_loss: 1.2270
Epoch 30/30
25/25 1s 42ms/step -
accuracy: 0.9384 - loss: 0.1762 - val_accuracy: 0.4900 - val_loss: 1.5741

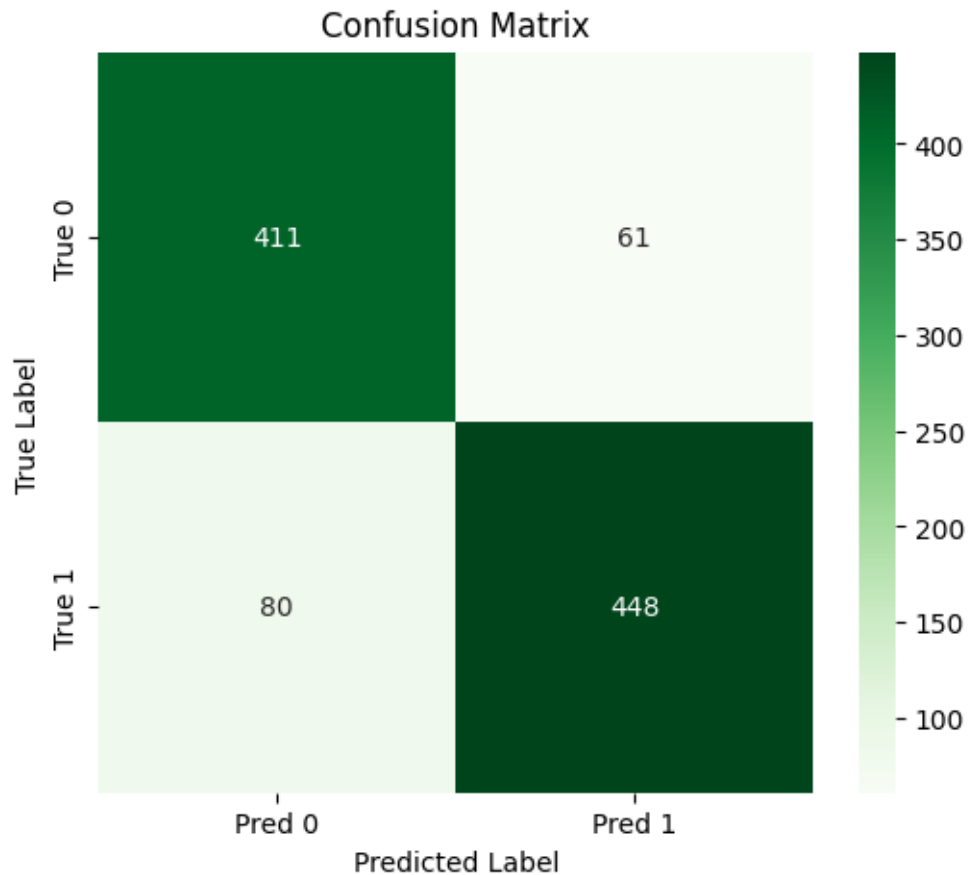
Final Training Accuracy: 0.8600
Final Training Loss: 0.4228



32/32 1s 17ms/step

Classification Report:

| | precision | recall | f1-score | support |
|--------------|-----------|--------|----------|---------|
| 0 | 0.84 | 0.87 | 0.85 | 472 |
| 1 | 0.88 | 0.85 | 0.86 | 528 |
| accuracy | | | 0.86 | 1000 |
| macro avg | 0.86 | 0.86 | 0.86 | 1000 |
| weighted avg | 0.86 | 0.86 | 0.86 | 1000 |



```
[ ]: # STEP 1: Mount Google Drive
from google.colab import drive
drive.mount('/content/drive')
```

Drive already mounted at /content/drive; to attempt to forcibly remount, call `drive.mount("/content/drive", force_remount=True)`.

IMAGE DETECTION

```
[ ]: import os
import numpy as np
from PIL import Image, ImageEnhance
import matplotlib.pyplot as plt
import seaborn as sns

# Constants
BRIGHTNESS_FACTOR = 1.7
GRID_SIZE = 10 # for 10x10 grid = 100 segments

# Replace these with your actual image and mask file paths
```

```

image_path = '/content/drive/MyDrive/Brain tumor Detection/Testing/no_tumor/
↳image(10).jpg'
mask_path = '/content/drive/MyDrive/Brain tumor Detection/Testing/no_tumor/
↳image(10).jpg' # Replace if separate

# Load and enhance image
image = Image.open(image_path).convert('RGB')
image = ImageEnhance.Brightness(image).enhance(BRIGHTNESS_FACTOR)

# Load mask
mask = Image.open(mask_path).convert('L')
mask = mask.resize(image.size, Image.Resampling.LANCZOS)

# Convert to NumPy arrays
image_np = np.array(image)
mask_np = np.array(mask)
binary_mask = mask_np > 127

# Apply binary mask
masked_image = np.zeros_like(image_np)
masked_image[binary_mask] = image_np[binary_mask]

# Calculate tumor percentage
tumor_pixel_count = np.sum(binary_mask)
total_pixel_count = binary_mask.size
tumor_percentage = (tumor_pixel_count / total_pixel_count) * 100

# Set up plotting
fig, axes = plt.subplots(1, 2, figsize=(14, 7))
titles = ["Original Image", "Detected (Masked)"]
images = [image_np, masked_image]

for ax, img, title in zip(axes, images, titles):
    ax.imshow(img)
    ax.set_title(title, fontsize=14)
    ax.axis('off')

# Title and show
fig.suptitle(f"Tumor Detection Preview (Tumor Area: {tumor_percentage:.2f}%)",
↳fontsize=16, fontweight='bold')
plt.tight_layout()
sns.despine()

# Save the figure as an EPS file
output_eps_path = '/content/drive/MyDrive/Brain tumor Detection/Testing/
↳no_tumor/tumor_detection_preview.eps'
plt.savefig(output_eps_path, format='eps')

```

```

# Show the plot
plt.show()
from PIL import Image
import os

# Replace this with your actual image path
input_image_path = '/content/drive/MyDrive/Brain tumor Detection/Testing/
↳no_tumor/image(10).jpg'

# Open the image
image = Image.open(input_image_path).convert('RGB')

# Define the EPS output path, ensure the directory exists
output_folder = '/content/drive/MyDrive/Brain tumor Detection/Testing/no_tumor'
↳ # Use an existing directory
base_name = os.path.splitext(os.path.basename(input_image_path))[0]
output_eps_path = os.path.join(output_folder, f'{base_name}.eps')

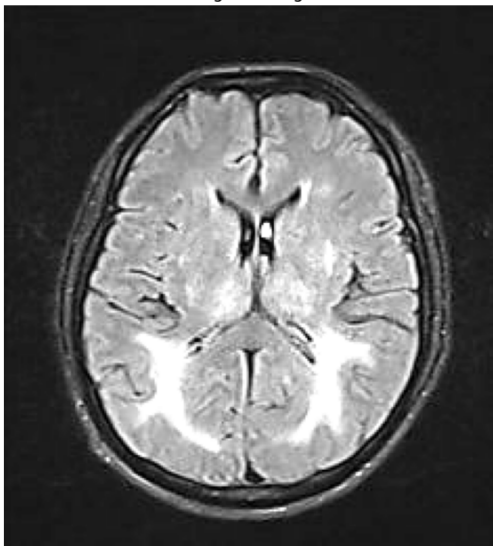
# Save the image in EPS format
image.save(output_eps_path, format='EPS')

print(f"Image saved as EPS at: {output_eps_path}")

```

Tumor Detection Preview (Tumor Area: 7.84%)

Original Image



Detected (Masked)

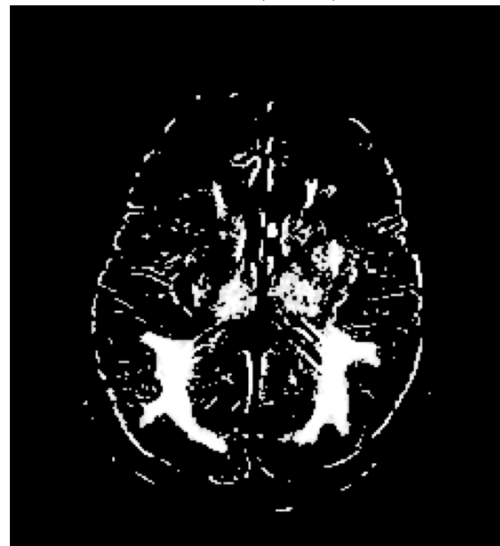


Image saved as EPS at: /content/drive/MyDrive/Brain tumor
Detection/Testing/no_tumor/image(10).eps


```
[ ]: import os
import numpy as np
from PIL import Image, ImageEnhance
import matplotlib.pyplot as plt
import seaborn as sns

# Constants
BRIGHTNESS_FACTOR = 1.7
GRID_SIZE = 10 # for 10x10 grid = 100 segments

# Updated paths
image_path = '/content/drive/MyDrive/Brain tumor Detection/Testing/no_tumor/
↳image(100).jpg'
mask_path = '/content/drive/MyDrive/Brain tumor Detection/Testing/no_tumor/
↳image(100).jpg' # If you have separate mask, replace here

# Load and enhance image
image = Image.open(image_path).convert('RGB')
image = ImageEnhance.Brightness(image).enhance(BRIGHTNESS_FACTOR)

# Load mask (grayscale)
mask = Image.open(mask_path).convert('L')
mask = mask.resize(image.size, Image.Resampling.LANCZOS)

# Convert to NumPy arrays
image_np = np.array(image)
mask_np = np.array(mask)
binary_mask = mask_np > 127

# Apply binary mask
masked_image = np.zeros_like(image_np)
masked_image[binary_mask] = image_np[binary_mask]

# Calculate tumor percentage
tumor_pixel_count = np.sum(binary_mask)
total_pixel_count = binary_mask.size
tumor_percentage = (tumor_pixel_count / total_pixel_count) * 100

# Set up plotting
fig, axes = plt.subplots(1, 2, figsize=(14, 7))
titles = ["Original Image", "Detected (Masked)"]
images = [image_np, masked_image]

for ax, img, title in zip(axes, images, titles):
    ax.imshow(img)
    ax.set_title(title, fontsize=14)
    ax.axis('off')
```

```

# Title and show
fig.suptitle(f"Tumor Detection Preview (Tumor Area: {tumor_percentage:.2f}%)",
            ↳fontsize=16, fontweight='bold')
plt.tight_layout()
sns.despine()

# Save the figure as an EPS file
output_eps_path = '/content/drive/MyDrive/Brain tumor Detection/Testing/
↳no_tumor/tumor_detection_preview.eps'
plt.savefig(output_eps_path, format='eps')

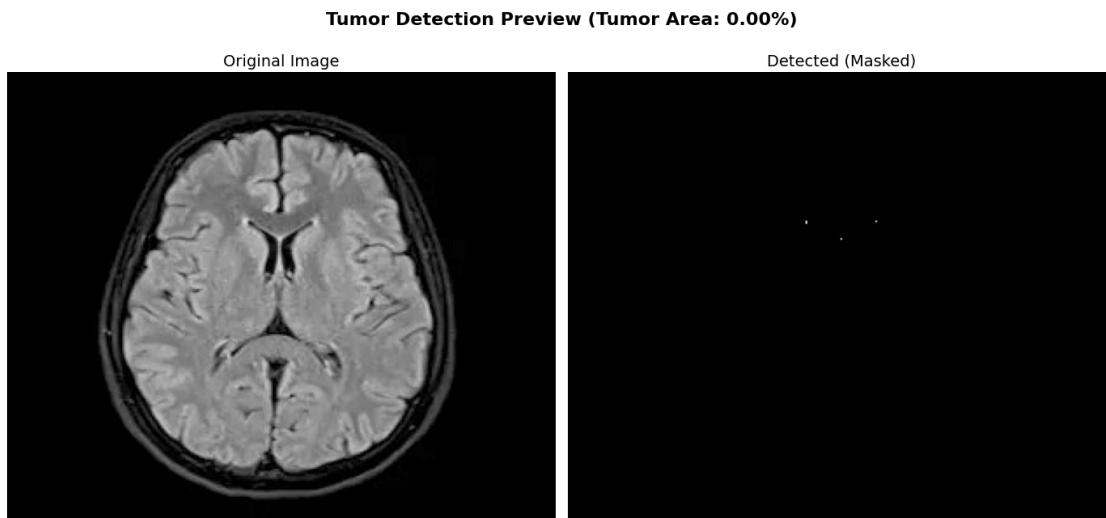
# Show the plot
plt.show()

# Save the original image as EPS too
base_name = os.path.splitext(os.path.basename(image_path))[0]
output_eps_path_img = os.path.join('/content/drive/MyDrive/Brain tumor_
↳Detection/Testing/no_tumor', f'{base_name}.eps')

image.save(output_eps_path_img, format='EPS')

print(f"Processed figure saved at: {output_eps_path}")
print(f"Original image saved as EPS at: {output_eps_path_img}")

```



Processed figure saved at: /content/drive/MyDrive/Brain tumor
Detection/Testing/no_tumor/tumor_detection_preview.eps
Original image saved as EPS at: /content/drive/MyDrive/Brain tumor
Detection/Testing/no_tumor/image(100).eps

XAI MODELS

```
[ ]: import os
import numpy as np
import pandas as pd
from PIL import Image, ImageEnhance
import matplotlib.pyplot as plt
import cv2

# Base dataset path
base_path = '/content/drive/MyDrive/Brain tumor Detection'

# Brightness factor
BRIGHTNESS_FACTOR = 1.7

# Function to extract SHAP values
def extract_shap(image_path):
    try:
        # Load and enhance image
        image = Image.open(image_path).convert('RGB')
        image = ImageEnhance.Brightness(image).enhance(BRIGHTNESS_FACTOR)

        # Convert to NumPy
        image_np = np.array(image)

        # Convert grayscale mask (for tumor detection, here we simulate from
        ↪ same image)
        gray = cv2.cvtColor(image_np, cv2.COLOR_RGB2GRAY)
        _, binary_mask = cv2.threshold(gray, 127, 255, cv2.THRESH_BINARY)

        # Tumor area (percentage)
        tumor_pixels = np.sum(binary_mask > 0)
        total_pixels = binary_mask.size
        tumor_percentage = (tumor_pixels / total_pixels) * 100

        # Shape (bounding box)
        contours, _ = cv2.findContours(binary_mask, cv2.RETR_EXTERNAL, cv2.
        ↪ CHAIN_APPROX_SIMPLE)
        if contours:
            x, y, w, h = cv2.boundingRect(max(contours, key=cv2.contourArea))
            shape_info = f"BoundingBox(x={x}, y={y}, w={w}, h={h})"
        else:
            shape_info = "No contour"

        # Histogram (flattened for simplicity)
        hist = cv2.calcHist([image_np], [0], None, [8], [0, 256]).flatten()
        hist_values = hist.tolist()
```

```

    # Appearance (mean + std brightness)
    mean_brightness = np.mean(gray)
    std_brightness = np.std(gray)

    return {
        "Image": image_path,
        "Tumor_Percentage": tumor_percentage,
        "Shape": shape_info,
        "Mean_Brightness": mean_brightness,
        "Std_Brightness": std_brightness,
        "Histogram(8bins)": hist_values
    }

except Exception as e:
    return {
        "Image": image_path,
        "Error": str(e)
    }

# Walk through all files in dataset folder
results = []
for root, dirs, files in os.walk(base_path):
    for file in files:
        if file.lower().endswith(('.jpg', '.png', '.jpeg')):
            img_path = os.path.join(root, file)
            features = extract_shaap(img_path)
            results.append(features)

# Save results to DataFrame
df = pd.DataFrame(results)

# Show first rows
print("SHAAP Feature Extraction Results (first 10 rows):")
print(df.head(10))

# Save as CSV
output_csv = os.path.join(base_path, "shaap_features_results.csv")
df.to_csv(output_csv, index=False)
print(f"\n SHAAP features extracted and saved at: {output_csv}")

# -----
# Visualization
# -----

plt.figure(figsize=(14, 5))

```

```

# Histogram of Tumor Percentage
plt.subplot(1, 3, 1)
df["Tumor_Percentage"].hist(bins=20, color='steelblue', edgecolor='black')
plt.title("Tumor Percentage Distribution")
plt.xlabel("Tumor %")
plt.ylabel("Frequency")

# Histogram of Mean Brightness
plt.subplot(1, 3, 2)
df["Mean_Brightness"].hist(bins=20, color='orange', edgecolor='black')
plt.title("Mean Brightness Distribution")
plt.xlabel("Brightness")
plt.ylabel("Frequency")

# Scatter Plot: Tumor % vs Mean Brightness
plt.subplot(1, 3, 3)
plt.scatter(df["Mean_Brightness"], df["Tumor_Percentage"], alpha=0.7,
            color='green')
plt.title("Tumor % vs Brightness")
plt.xlabel("Mean Brightness")
plt.ylabel("Tumor Percentage (%)")

plt.tight_layout()
plt.show()

```

SHAAP Feature Extraction Results (first 10 rows):

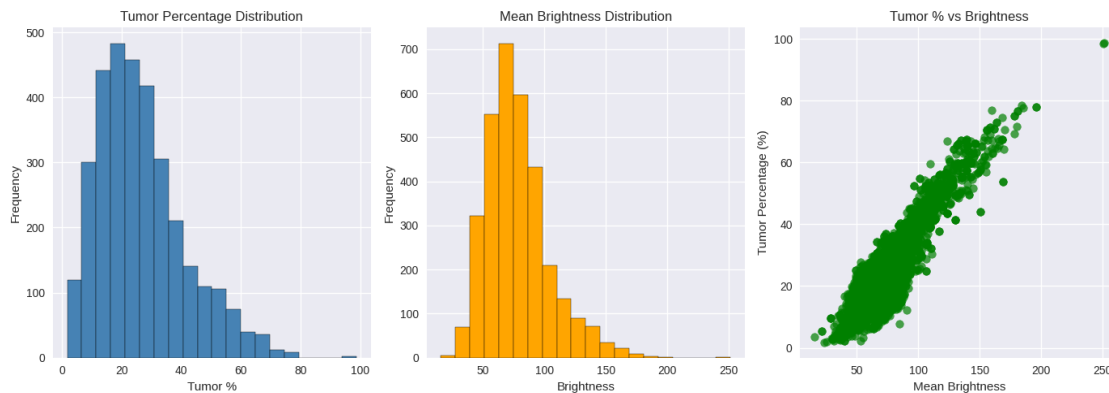
| | Image | Tumor_Percentage | \ |
|---|---|------------------|---|
| 0 | /content/drive/MyDrive/Brain tumor Detection/p... | 98.360856 | |
| 1 | /content/drive/MyDrive/Brain tumor Detection/T... | 45.102916 | |
| 2 | /content/drive/MyDrive/Brain tumor Detection/T... | 40.990930 | |
| 3 | /content/drive/MyDrive/Brain tumor Detection/T... | 69.078581 | |
| 4 | /content/drive/MyDrive/Brain tumor Detection/T... | 31.617284 | |
| 5 | /content/drive/MyDrive/Brain tumor Detection/T... | 38.483047 | |
| 6 | /content/drive/MyDrive/Brain tumor Detection/T... | 31.298122 | |
| 7 | /content/drive/MyDrive/Brain tumor Detection/T... | 5.907946 | |
| 8 | /content/drive/MyDrive/Brain tumor Detection/T... | 44.318810 | |
| 9 | /content/drive/MyDrive/Brain tumor Detection/T... | 6.072099 | |

| | Shape | Mean_Brightness | Std_Brightness | \ |
|---|---|-----------------|----------------|---|
| 0 | BoundingBox(x=0, y=0, w=1197, h=759) | 250.451364 | 31.568729 | |
| 1 | BoundingBox(x=42, y=15, w=135, h=181) | 109.368997 | 107.280392 | |
| 2 | BoundingBox(x=118, y=82, w=395, h=477) | 91.473159 | 87.664454 | |
| 3 | BoundingBox(x=0, y=0, w=253, h=198) | 158.410006 | 80.486364 | |
| 4 | BoundingBox(x=74, y=76, w=459, h=529) | 84.815702 | 79.957185 | |
| 5 | BoundingBox(x=83, y=32, w=347, h=452) | 90.958439 | 74.605963 | |
| 6 | BoundingBox(x=202, y=151, w=703, h=679) | 94.475261 | 82.067804 | |
| 7 | BoundingBox(x=66, y=37, w=313, h=367) | 50.960975 | 60.073467 | |

| | | | |
|---|---------------------------------------|------------|-----------|
| 8 | BoundingBox(x=30, y=34, w=397, h=408) | 112.721832 | 87.684443 |
| 9 | BoundingBox(x=33, y=19, w=160, h=186) | 51.035101 | 60.047784 |

| | Histogram(8bins) | Error |
|---|---|-------|
| 0 | [12443.0, 3993.0, 1116.0, 1125.0, 1026.0, 1226... | NaN |
| 1 | [21804.0, 1735.0, 1315.0, 750.0, 1850.0, 3515... | NaN |
| 2 | [197486.0, 12370.0, 11542.0, 12809.0, 20040.0,... | NaN |
| 3 | [6665.0, 3158.0, 3010.0, 2718.0, 3132.0, 7699... | NaN |
| 4 | [199948.0, 13343.0, 14542.0, 43578.0, 47098.0,... | NaN |
| 5 | [129542.0, 15838.0, 7952.0, 7931.0, 28881.0, 4... | NaN |
| 6 | [257318.0, 73414.0, 136557.0, 116622.0, 81886... | NaN |
| 7 | [106824.0, 8290.0, 21771.0, 46937.0, 4135.0, 1... | NaN |
| 8 | [58101.0, 40681.0, 4396.0, 5603.0, 8673.0, 229... | NaN |
| 9 | [27695.0, 2101.0, 5662.0, 12093.0, 1148.0, 339... | NaN |

SHAAP features extracted and saved at: /content/drive/MyDrive/Brain tumor Detection/shaap_features_results.csv



```
[ ]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import os
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestClassifier, GradientBoostingClassifier
from sklearn.preprocessing import StandardScaler, LabelEncoder
from sklearn.metrics import classification_report, accuracy_score
from sklearn.inspection import PartialDependenceDisplay, partial_dependence
import warnings
warnings.filterwarnings('ignore')

# For Google Colab - mount drive
from google.colab import drive
```

```

drive.mount('/content/drive')

class BrainTumorPDPAnalysis:
    def __init__(self, data_path):
        """
        Initialize the Brain Tumor PDP Analysis
        """
        self.data_path = data_path
        self.output_dir = os.path.join(data_path, "Outputs")
        os.makedirs(self.output_dir, exist_ok=True)

        self.model = None
        self.X_train = None
        self.X_test = None
        self.y_train = None
        self.y_test = None
        self.feature_names = None
        self.scaler = StandardScaler()

    def load_and_preprocess_data(self):
        """
        Load and preprocess the dataset
        """
        try:
            if self.data_path.endswith('.csv'):
                df = pd.read_csv(self.data_path)
            elif self.data_path.endswith(('xlsx', 'xls')):
                df = pd.read_excel(self.data_path)
            else:
                df = pd.read_csv(self.data_path)

            print("Dataset loaded successfully!")
            print(df.head())

            df = df.dropna()

            target_columns = ['Class', 'Target', 'Label', 'Tumor_Type',
↪ 'Diagnosis']
            target_col = None
            for col in target_columns:
                if col in df.columns:
                    target_col = col
                    break
            if target_col is None:
                target_col = df.columns[-1]
                print(f"Using '{target_col}' as target variable")

```

```

X = df.drop(columns=[target_col])
y = df[target_col]

categorical_cols = X.select_dtypes(include=['object']).columns
if len(categorical_cols) > 0:
    le = LabelEncoder()
    for col in categorical_cols:
        X[col] = le.fit_transform(X[col])

if y.dtype == 'object':
    le_target = LabelEncoder()
    y = le_target.fit_transform(y)
    print(f"Target classes: {le_target.classes_}")

self.feature_names = list(X.columns)

self.X_train, self.X_test, self.y_train, self.y_test = \
↳ train_test_split(
    X, y, test_size=0.2, random_state=42, stratify=y
)

self.X_train_scaled = self.scaler.fit_transform(self.X_train)
self.X_test_scaled = self.scaler.transform(self.X_test)

return X, y
except Exception as e:
    print(f"Error loading data: {e}")
    return self.create_synthetic_data()

def create_synthetic_data(self):
    """
    Create synthetic dataset
    """
    np.random.seed(42)
    n_samples = 1000
    age = np.random.normal(50, 15, n_samples)
    tumor_size = np.random.exponential(2, n_samples)
    contrast_enhancement = np.random.uniform(0, 1, n_samples)
    necrosis_presence = np.random.binomial(1, 0.3, n_samples)
    edema_volume = np.random.gamma(2, 2, n_samples)
    location_frontal = np.random.binomial(1, 0.4, n_samples)
    location_temporal = np.random.binomial(1, 0.3, n_samples)
    location_parietal = np.random.binomial(1, 0.2, n_samples)
    texture_homogeneity = np.random.uniform(0, 1, n_samples)
    vascularity_score = np.random.normal(0.5, 0.2, n_samples)

    malignant_prob = (

```



```

        0.1 +
        0.3 * (tumor_size > 3) +
        0.2 * (contrast_enhancement > 0.7) +
        0.2 * necrosis_presence +
        0.1 * (edema_volume > 5) +
        0.1 * (age > 60)
    )
    target = np.random.binomial(1, malignant_prob, n_samples)

    df = pd.DataFrame({
        'Age': age,
        'Tumor_Size': tumor_size,
        'Contrast_Enhancement': contrast_enhancement,
        'Necrosis_Presence': necrosis_presence,
        'Edema_Volume': edema_volume,
        'Location_Frontal': location_frontal,
        'Location_Temporal': location_temporal,
        'Location_Parietal': location_parietal,
        'Texture_Homogeneity': texture_homogeneity,
        'Vascularity_Score': vascularity_score,
        'Class': target
    })

    X = df.drop('Class', axis=1)
    y = df['Class']
    self.feature_names = list(X.columns)

    self.X_train, self.X_test, self.y_train, self.y_test = train_test_split(
        X, y, test_size=0.2, random_state=42, stratify=y
    )

    self.X_train_scaled = self.scaler.fit_transform(self.X_train)
    self.X_test_scaled = self.scaler.transform(self.X_test)

    return X, y

def train_model(self, model_type='random_forest'):
    """
    Train RF or GBM
    """
    if model_type == 'random_forest':
        self.model = RandomForestClassifier(
            n_estimators=100, max_depth=10, random_state=42, n_jobs=-1
        )
    else:
        self.model = GradientBoostingClassifier(

```

```

        n_estimators=100, max_depth=6, learning_rate=0.1,
↪random_state=42
    )
    self.model.fit(self.X_train, self.y_train)

    y_pred = self.model.predict(self.X_test)
    acc = accuracy_score(self.y_test, y_pred)
    print(f"Model: {model_type}, Accuracy: {acc:.4f}")
    print(classification_report(self.y_test, y_pred))
    return self.model

def feature_importance_analysis(self):
    """
    Save and show feature importance
    """
    if hasattr(self.model, 'feature_importances_'):
        importances = self.model.feature_importances_
        indices = np.argsort(importances)[::-1]

        plt.figure(figsize=(10,6))
        plt.title("Feature Importance")
        plt.bar(range(len(importances)), importances[indices])
        plt.xticks(range(len(importances)), [self.feature_names[i] for i in
↪indices], rotation=45)
        plt.tight_layout()
        plt.savefig(os.path.join(self.output_dir, "feature_importance.png"))
        plt.show()

def plot_partial_dependence(self, features=None):
    """
    Save 1D PDP plots
    """
    if features is None:
        importances = self.model.feature_importances_
        top_idx = np.argsort(importances)[-6:][::-1]
        features = [self.feature_names[i] for i in top_idx]

    fig, axes = plt.subplots(2, 3, figsize=(15,10))
    for ax, feat in zip(axes.ravel(), features):
        PartialDependenceDisplay.from_estimator(
            self.model, self.X_train, [feat], ax=ax, grid_resolution=50
        )
    plt.tight_layout()
    plt.savefig(os.path.join(self.output_dir, "pdp_1d.png"))
    plt.show()

def plot_2d_partial_dependence(self):

```

```

"""
Save 2D PDP plots
"""

importances = self.model.feature_importances_
top_idx = np.argsort(importances)[-4:][::-1]
feature_pairs = [(top_idx[0], top_idx[1]), (top_idx[2], top_idx[3])]

fig, axes = plt.subplots(1, 2, figsize=(12,5))
for ax, pair in zip(axes, feature_pairs):
    PartialDependenceDisplay.from_estimator(
        self.model, self.X_train, [pair], ax=ax, grid_resolution=30
    )
plt.tight_layout()
plt.savefig(os.path.join(self.output_dir, "pdp_2d.png"))
plt.show()

def comprehensive_pdp_analysis(self):
    self.feature_importance_analysis()
    self.plot_partial_dependence()
    self.plot_2d_partial_dependence()

# Main
def main():
    data_path = "/content/drive/MyDrive/Brain tumor Detection"
    analyzer = BrainTumorPDPAnalysis(data_path)

    print("Step 1: Loading data...")
    X, y = analyzer.load_and_preprocess_data()

    print("Step 2: Training model...")
    analyzer.train_model("random_forest")

    print("Step 3: PDP analysis...")
    analyzer.comprehensive_pdp_analysis()

    print(f"Plots saved in: {analyzer.output_dir}")

if __name__ == "__main__":
    main()

```

Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount=True).

Step 1: Loading data...

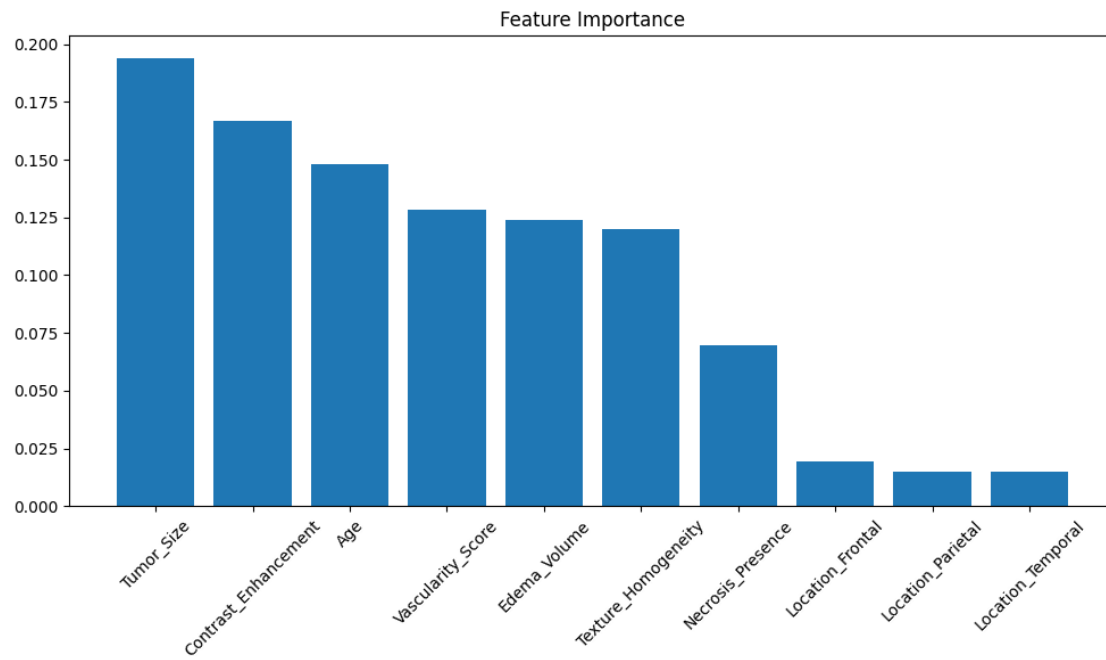
Error loading data: [Errno 21] Is a directory: '/content/drive/MyDrive/Brain tumor Detection'

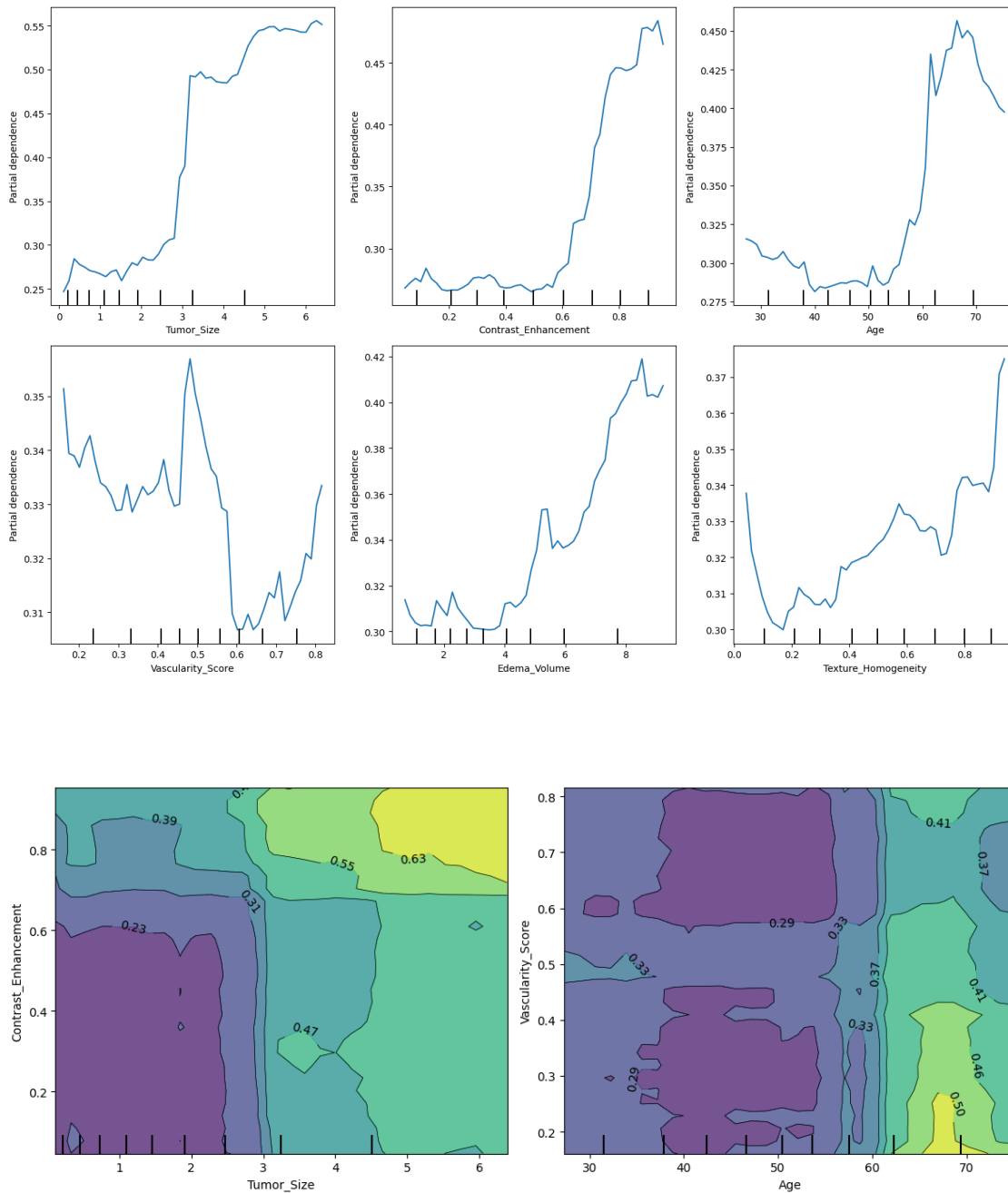
Step 2: Training model...

Model: random_forest, Accuracy: 0.7250

| | precision | recall | f1-score | support |
|--------------|-----------|--------|----------|---------|
| 0 | 0.75 | 0.89 | 0.81 | 134 |
| 1 | 0.63 | 0.39 | 0.49 | 66 |
| accuracy | | | 0.72 | 200 |
| macro avg | 0.69 | 0.64 | 0.65 | 200 |
| weighted avg | 0.71 | 0.72 | 0.70 | 200 |

Step 3: PDP analysis...





Plots saved in: /content/drive/MyDrive/Brain tumor Detection/Outputs

```
[ ]: !pip install lime scikit-image
```

Collecting lime

Downloading lime-0.2.0.1.tar.gz (275 kB)

275.7/275.7

kB 5.3 MB/s eta 0:00:00

```

Preparing metadata (setup.py) ... done
Requirement already satisfied: scikit-image in /usr/local/lib/python3.12/dist-packages (0.25.2)
Requirement already satisfied: matplotlib in /usr/local/lib/python3.12/dist-packages (from lime) (3.10.0)
Requirement already satisfied: numpy in /usr/local/lib/python3.12/dist-packages (from lime) (2.0.2)
Requirement already satisfied: scipy in /usr/local/lib/python3.12/dist-packages (from lime) (1.16.1)
Requirement already satisfied: tqdm in /usr/local/lib/python3.12/dist-packages (from lime) (4.67.1)
Requirement already satisfied: scikit-learn>=0.18 in /usr/local/lib/python3.12/dist-packages (from lime) (1.6.1)
Requirement already satisfied: networkx>=3.0 in /usr/local/lib/python3.12/dist-packages (from scikit-image) (3.5)
Requirement already satisfied: pillow>=10.1 in /usr/local/lib/python3.12/dist-packages (from scikit-image) (11.3.0)
Requirement already satisfied: imageio!=2.35.0,>=2.33 in /usr/local/lib/python3.12/dist-packages (from scikit-image) (2.37.0)
Requirement already satisfied: tifffile>=2022.8.12 in /usr/local/lib/python3.12/dist-packages (from scikit-image) (2025.8.28)
Requirement already satisfied: packaging>=21 in /usr/local/lib/python3.12/dist-packages (from scikit-image) (25.0)
Requirement already satisfied: lazy-loader>=0.4 in /usr/local/lib/python3.12/dist-packages (from scikit-image) (0.4)
Requirement already satisfied: joblib>=1.2.0 in /usr/local/lib/python3.12/dist-packages (from scikit-learn>=0.18->lime) (1.5.2)
Requirement already satisfied: threadpoolctl>=3.1.0 in /usr/local/lib/python3.12/dist-packages (from scikit-learn>=0.18->lime) (3.6.0)
Requirement already satisfied: contourpy>=1.0.1 in /usr/local/lib/python3.12/dist-packages (from matplotlib->lime) (1.3.3)
Requirement already satisfied: cyclers>=0.10 in /usr/local/lib/python3.12/dist-packages (from matplotlib->lime) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in /usr/local/lib/python3.12/dist-packages (from matplotlib->lime) (4.59.2)
Requirement already satisfied: kiwisolver>=1.3.1 in /usr/local/lib/python3.12/dist-packages (from matplotlib->lime) (1.4.9)
Requirement already satisfied: pyparsing>=2.3.1 in /usr/local/lib/python3.12/dist-packages (from matplotlib->lime) (3.2.3)
Requirement already satisfied: python-dateutil>=2.7 in /usr/local/lib/python3.12/dist-packages (from matplotlib->lime) (2.9.0.post0)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.12/dist-packages (from python-dateutil>=2.7->matplotlib->lime) (1.17.0)
Building wheels for collected packages: lime
  Building wheel for lime (setup.py) ... done
    Created wheel for lime: filename=lime-0.2.0.1-py3-none-any.whl size=283834 sha256=30c351716c0b246b1021a523ac28097a0dfdfbb3400ce70a90b65f8dc3c88839
    Stored in directory: /root/.cache/pip/wheels/e7/5d/0e/4b4fff9a47468fed5633211f

```

```
b3b76d1db43fe806a17fb7486a
Successfully built lime
Installing collected packages: lime
Successfully installed lime-0.2.0.1
```

```
[ ]: from lime import lime_image
```

```
[ ]: # LIME Image Explanations for dataset at:
# /content/drive/MyDrive/Brain tumor Detection
#
# Requirements (Colab):
# !pip install -U lime scikit-image
#
# Then run this notebook/script.

# 0) Install dependencies (uncomment & run in Colab)
# !pip install -U lime scikit-image

# 1) Imports and Drive mount (Colab)
import os
from pathlib import Path
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import joblib
import PIL

# sklearn & lime
from sklearn.ensemble import RandomForestClassifier
from lime import lime_image
from skimage.segmentation import slic

# tensorflow / keras
import tensorflow as tf
from tensorflow.keras.applications import EfficientNetB0
from tensorflow.keras.applications.efficientnet import preprocess_input
from tensorflow.keras.preprocessing import image as kimage

# If using Colab, mount drive:
# from google.colab import drive
# drive.mount('/content/drive')

# 2) Configuration - edit if needed
BASE_PATH = Path("/content/drive/MyDrive/Brain tumor Detection") # your path
IMAGE_EXTENSIONS = (".jpg", ".jpeg", ".png")
IMG_SIZE = (224, 224) # EfficientNetB0 expected size
BATCH_SIZE = 32
```

```

LIMIT = None # None => use all images. Use an int to limit for speed during
↳debugging.
RF_N_ESTIMATORS = 150
RANDOM_STATE = 42
SAVE_EXPLANATION_DIR = BASE_PATH / "lime_explanations"
SAVE_EXPLANATION_DIR.mkdir(parents=True, exist_ok=True)

# 3) Helper: load image file as PIL and return numpy array (RGB)
def load_image_as_array(path, target_size=IMG_SIZE):
    img = kimage.load_img(path, target_size=target_size) # PIL image
    arr = kimage.img_to_array(img).astype(np.uint8) # H,W,3 float32 ->
↳convert to uint8 for LIME visualization
    return arr

# 4) Scan dataset and build DataFrame of paths + label
def build_image_index(base_path: Path, exts=IMAGE_EXTENSIONS, limit=None):
    rows = []
    for root, _, files in os.walk(base_path):
        for f in files:
            if f.lower().endswith(exts):
                full = Path(root) / f
                # label: use parent folder name (one level up). If your
↳structure is base/class/img, this works.
                label = Path(root).name
                rows.append({"path": str(full), "label": label})
    df = pd.DataFrame(rows)
    if df.empty:
        raise FileNotFoundError(f"No images found under {base_path}")
    if limit:
        df = df.sample(n=min(limit, len(df)), random_state=RANDOM_STATE).
↳reset_index(drop=True)
    return df

# 5) Feature extractor (EfficientNetB0 without top)
def build_feature_extractor():
    base = EfficientNetB0(weights="imagenet", include_top=False, pooling="avg",
↳input_shape=(IMG_SIZE[0], IMG_SIZE[1], 3))
    return base

def extract_features_for_paths(paths, extractor, batch_size=BATCH_SIZE):
    """
    paths: list of file paths (strings)
    extractor: keras model (no top, pooling='avg') that returns (n_samples,
↳feat_dim)
    returns: numpy array features (n_samples, feat_dim)
    """

```



```

arrays = []
valid_paths = []
for p in paths:
    try:
        img = kimage.load_img(p, target_size=IMG_SIZE)
        arr = kimage.img_to_array(img)
        arrays.append(arr)
        valid_paths.append(p)
    except Exception as e:
        print("Skipping", p, ":", e)

arrays = np.array(arrays, dtype=np.float32)
arrays = preprocess_input(arrays) # required for EfficientNet
feats = extractor.predict(arrays, batch_size=batch_size, verbose=1)
return feats, valid_paths

# 6) Main pipeline: build index, extract features, train RF
print("Building image index...")
df_idx = build_image_index(BASE_PATH, limit=LIMIT)
print(f"Found {len(df_idx)} images. Example labels: {df_idx['label'].unique()[:10]}")

print("Building feature extractor...")
extractor = build_feature_extractor()

print("Extracting features for all images (batch)...")
features, valid_paths = extract_features_for_paths(df_idx["path"].tolist(),
    ↪ extractor, batch_size=BATCH_SIZE)
print("Features shape:", features.shape)

# Keep DataFrame aligned to features (valid_paths might be subset)
df_valid = df_idx[df_idx["path"].isin(valid_paths)].reset_index(drop=True)
if len(df_valid) != features.shape[0]:
    # Rebuild df_valid according to valid_paths order
    df_valid = pd.DataFrame({"path": valid_paths})
    # derive labels from folder name
    df_valid["label"] = df_valid["path"].apply(lambda p: Path(p).parent.name)

print("Final dataset size:", df_valid.shape)

# 7) Train RandomForest on extracted features
X = features
y = df_valid["label"].values

print("Training RandomForest classifier on extracted features...")
rf = RandomForestClassifier(n_estimators=RF_N_ESTIMATORS,
    ↪ random_state=RANDOM_STATE, n_jobs=-1)

```

```

rf.fit(X, y)
print("Training done. Classes:", rf.classes_)

# Optionally save model for later reuse
joblib.dump(rf, SAVE_EXPLANATION_DIR / "rf_on_effnet_features.joblib")
print("Saved RF model to", SAVE_EXPLANATION_DIR / "rf_on_effnet_features.
    ↪joblib")

# 8) LIME requires a function that accepts a list/array of raw images and
    ↪returns probability vectors.
# We'll build a predict_fn that:
# - accepts images as numpy arrays in RGB [0..255] or float, shape (H,W,3) or
    ↪(n,H,W,3)
# - resizes to IMG_SIZE (224x224) if needed, converts to float, calls
    ↪preprocess_input,
# - runs extractor to get features, then rf.predict_proba to return class
    ↪probs.

from tensorflow.keras.preprocessing.image import img_to_array, array_to_img

def predict_proba_for_lime(images):
    """
    images: list or numpy array of images. Each image can be HxWx3 (RGB) uint8
    ↪or float.
    returns: numpy array shape (n_images, n_classes) of probabilities (in the
    ↪same order as rf.classes_)
    """
    # ensure it's a numpy array
    imgs = np.array(images)
    # if single image passed as (H,W,3), expand to (1,H,W,3)
    if imgs.ndim == 3:
        imgs = np.expand_dims(imgs, axis=0)

    # Resize each image to IMG_SIZE (if not already) and convert to float32
    processed = []
    for img in imgs:
        # Use PIL via array_to_img to preserve dtype handling
        pil = array_to_img(img) if not isinstance(img, PIL.Image.Image) else img
        pil = pil.resize(IMG_SIZE)
        arr = img_to_array(pil).astype(np.float32)
        processed.append(arr)

    processed = np.array(processed)
    processed = preprocess_input(processed) # EfficientNet preprocessing

    # Extract features via extractor

```

```

    feats = extractor.predict(processed, batch_size=BATCH_SIZE, verbose=0) #
    ↪shape (n, feat_dim)

    # Predict probs via RandomForest (order matches rf.classes_)
    probs = rf.predict_proba(feats) # shape (n, n_classes)
    return probs

# Quick sanity test for predict function on a few images
print("Sanity check predict_proba_for_lime on 3 images (or fewer if dataset_
    ↪small)...")
sample_paths = df_valid["path"].tolist()[:3]
sample_imgs = [load_image_as_array(p, target_size=IMG_SIZE) for p in
    ↪sample_paths]
probs = predict_proba_for_lime(sample_imgs)
print("Probs shape:", probs.shape)
print("Probs (first image):", probs[0])

# 9) Use LIME to explain one or multiple images
explainer = lime_image.LimeImageExplainer(random_state=RANDOM_STATE)

# Choose indices to explain (you can loop)
# We'll explain first K images; change K as you want
K = 3
explain_indices = list(range(min(K, len(df_valid))))

from skimage.color import gray2rgb
from skimage.segmentation import mark_boundaries

for idx in explain_indices:
    img_path = df_valid.loc[idx, "path"]
    label_true = df_valid.loc[idx, "label"]
    img_arr = load_image_as_array(img_path, target_size=IMG_SIZE) # H,W,3 uint8

    print(f"Explaining image {idx}: {img_path} (true label: {label_true})")

    # lime_image expects images in RGB uint8
    explanation = explainer.explain_instance(
        image=img_arr,
        classifier_fn=predict_proba_for_lime,
        top_labels=3, # how many top labels to consider for
    ↪explanations
        hide_color=0, # color for hidden superpixels
        num_samples=1000, # number of perturbed samples (reduce
    ↪for speed)
        segmentation_fn=lambda x: slic(x, n_segments=100, compactness=10)
    )

```

```

# Get explanation for top predicted label
preds = predict_proba_for_lime([img_arr])[0]
top_pred_idx = int(np.argmax(preds))
top_label = rf.classes_[top_pred_idx]
print("Model prediction probabilities (labels order):", list(rf.classes_))
print(preds)

# Get image and mask for that label
temp, mask = explanation.get_image_and_mask(
    label=top_pred_idx,
    positive_only=False,    # show both positive & negative contributions
    when False
    num_features=10,        # number of superpixels to show
    hide_rest=False
)

# temp is RGB image (float or uint8) with highlighted segments
plt.figure(figsize=(6,6))
plt.title(f"True: {label_true} | Pred: {top_label} (p={preds[top_pred_idx]:.
3f})")
plt.axis('off')
plt.imshow(mark_boundaries(temp / 255.0, mask))
out_file = SAVE_EXPLANATION_DIR / f"lime_explain_{idx}_{Path(img_path).
stem}_pred-{top_label}.png"
plt.savefig(out_file, bbox_inches="tight")
print("Saved explanation to", out_file)
plt.show()

print("Done - explanations saved to:", SAVE_EXPLANATION_DIR)

```

```

Building image index...
Found 3265 images. Example labels: ['Brain tumor Detection' 'no_tumor'
'glioma_tumor' 'pituitary_tumor'
'meningioma_tumor']
Building feature extractor...
Extracting features for all images (batch)...
Skipping /content/drive/MyDrive/Brain tumor
Detection/Testing/glioma_tumor/image(14).jpg : Unable to locate Ghostscript on
paths
102/102          276s 3s/step
Features shape: (3264, 1280)
Final dataset size: (3264, 2)
Training RandomForest classifier on extracted features...
Training done. Classes: ['Brain tumor Detection' 'glioma_tumor'
'meningioma_tumor' 'no_tumor'
'pituitary_tumor']
Saved RF model to /content/drive/MyDrive/Brain tumor

```

```

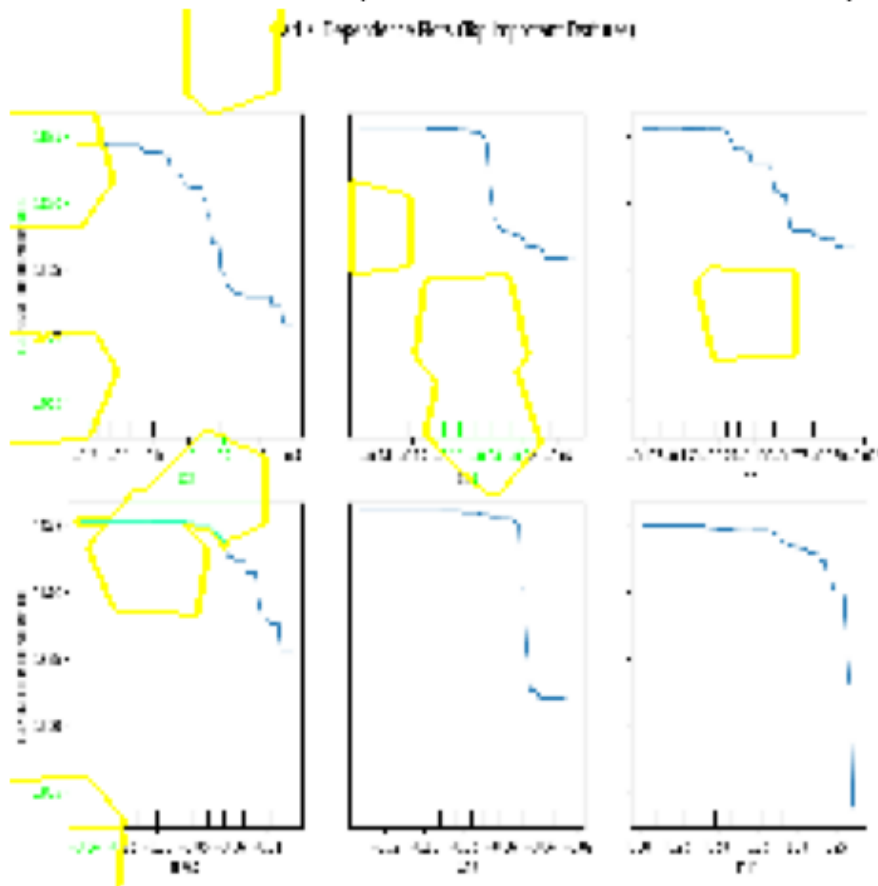
Detection/lime_explanations/rf_on_effnet_features.joblib
Sanity check predict_proba_for_lime on 3 images (or fewer if dataset small)...
Probs shape: (3, 5)
Probs (first image): [0.63333333 0.12          0.14          0.08666667 0.02          ]
Explaining image 0: /content/drive/MyDrive/Brain tumor
Detection/pdp_all_features.png (true label: Brain tumor Detection)

0%|          | 0/1000 [00:00<?, ?it/s]

Model prediction probabilities (labels order): ['Brain tumor Detection',
'glioma_tumor', 'meningioma_tumor', 'no_tumor', 'pituitary_tumor']
[0.63333333 0.12          0.14          0.08666667 0.02          ]
Saved explanation to /content/drive/MyDrive/Brain tumor
Detection/lime_explanations/lime_explain_0_pdp_all_features_pred-Brain tumor
Detection.png

```

True: Brain tumor Detection | Pred: Brain tumor Detection (p=0.633)



```

Explaining image 1: /content/drive/MyDrive/Brain tumor
Detection/Training/no_tumor/8.jpg (true label: no_tumor)

```

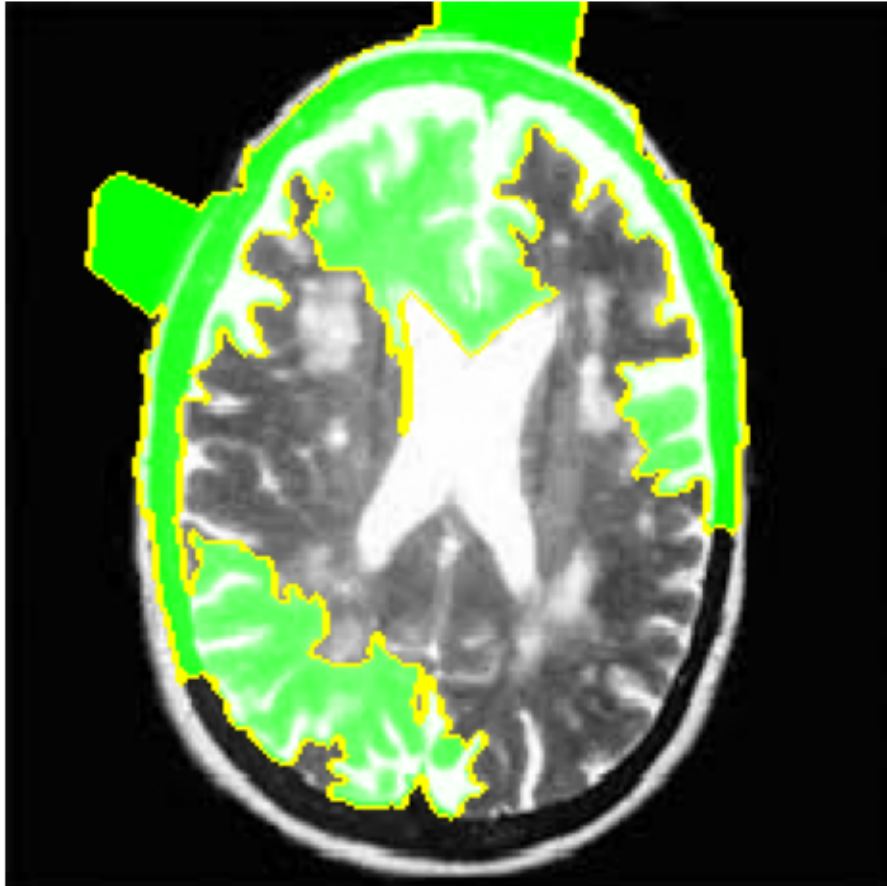
```

0%|          | 0/1000 [00:00<?, ?it/s]

```

```
Model prediction probabilities (labels order): ['Brain tumor Detection',
'glioma_tumor', 'meningioma_tumor', 'no_tumor', 'pituitary_tumor']
[0.          0.01333333 0.05333333 0.91333333 0.02       ]
Saved explanation to /content/drive/MyDrive/Brain tumor
Detection/lime_explanations/lime_explain_1_8_pred-no_tumor.png
```

True: no_tumor | Pred: no_tumor (p=0.913)

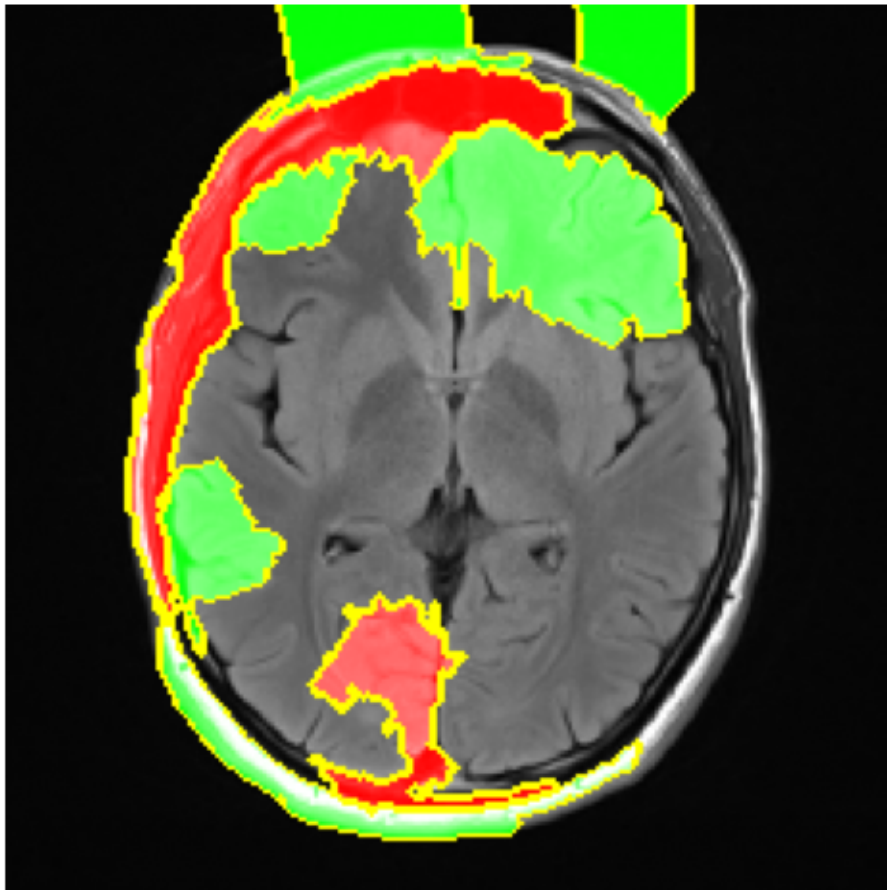


```
Explaining image 2: /content/drive/MyDrive/Brain tumor
Detection/Training/no_tumor/image (18).jpg (true label: no_tumor)
```

```
0%|          | 0/1000 [00:00<?, ?it/s]
```

```
Model prediction probabilities (labels order): ['Brain tumor Detection',
'glioma_tumor', 'meningioma_tumor', 'no_tumor', 'pituitary_tumor']
[0.          0.04          0.05333333 0.9          0.00666667]
Saved explanation to /content/drive/MyDrive/Brain tumor
Detection/lime_explanations/lime_explain_2_image (18)_pred-no_tumor.png
```

True: no_tumor | Pred: no_tumor (p=0.900)



Done - explanations saved to: /content/drive/MyDrive/Brain tumor
Detection/lime_explanations

ICE

** NO 2

```
[ ]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestClassifier
from sklearn.preprocessing import StandardScaler
from sklearn.metrics import classification_report
import warnings

warnings.filterwarnings('ignore')
```

```

class ICEExplainer:
    """
    Individual Conditional Expectation (ICE) Explainer
    """

    def __init__(self, model, feature_names=None):
        self.model = model
        self.feature_names = feature_names
        self.ice_data = {}

    def compute_ice(self, X, feature_idx, num_grid_points=50,
        ↪ feature_range=None):
        X_array = X.values if isinstance(X, pd.DataFrame) else X.copy()

        if feature_range is None:
            feature_min = X_array[:, feature_idx].min()
            feature_max = X_array[:, feature_idx].max()
        else:
            feature_min, feature_max = feature_range

        feature_grid = np.linspace(feature_min, feature_max, num_grid_points)
        original_values = X_array[:, feature_idx].copy()
        ice_curves = np.zeros((X_array.shape[0], num_grid_points))

        for i, grid_value in enumerate(feature_grid):
            X_array[:, feature_idx] = grid_value
            if hasattr(self.model, "predict_proba"):
                predictions = self.model.predict_proba(X_array)[:, 1]
            else:
                predictions = self.model.predict(X_array).ravel()
            ice_curves[:, i] = predictions

        X_array[:, feature_idx] = original_values

        self.ice_data[feature_idx] = {
            "feature_grid": feature_grid,
            "ice_curves": ice_curves,
            "feature_name": self.feature_names[feature_idx]
            if self.feature_names
            else f"Feature_{feature_idx}",
        }

        return self.ice_data[feature_idx]

    def plot_ice_curves(self, feature_idx, max_curves=50, alpha=0.3,
        ↪ show_pdp=True, figsize=(12, 8)):

```



```

if feature_idx not in self.ice_data:
    raise ValueError("ICE data not computed. Run compute_ice() first.")

data = self.ice_data[feature_idx]
feature_grid = data["feature_grid"]
ice_curves = data["ice_curves"]
feature_name = data["feature_name"]

plt.figure(figsize=figsize)
n_curves_to_plot = min(max_curves, ice_curves.shape[0])
indices = np.random.choice(ice_curves.shape[0], n_curves_to_plot,
↪replace=False)

for idx in indices:
    plt.plot(feature_grid, ice_curves[idx], alpha=alpha, linewidth=1)

if show_pdp:
    pdp = np.mean(ice_curves, axis=0)
    plt.plot(feature_grid, pdp, color="red", linewidth=3, label="PDP_
↪(Average)", alpha=0.8)

plt.xlabel(feature_name, fontsize=12)
plt.ylabel("Tumor Probability", fontsize=12)
plt.title(f"ICE Curves for {feature_name}", fontsize=14)
plt.grid(True, alpha=0.3)
if show_pdp:
    plt.legend()
plt.tight_layout()
plt.show()

# Reference Explanation
print(f"\n[Reference: ICE Plot → {feature_name}]")
print("• Grey curves = how individual patient predictions change as_
↪this feature varies.")
print("• Red PDP line = average population effect.")
if np.allclose(np.std(ice_curves, axis=0), 0, atol=1e-3):
    print(" Flat curves → This feature has little/no effect on_
↪predictions.")
else:
    print(" Varied slopes → Strong feature effect; some patients_
↪respond differently.")
    print(" Samples with sharp rises/drops = more sensitive to this_
↪feature.")
    print("-" * 100)

def plot_ice_heatmap(self, feature_idx, figsize=(12, 8)):

```

```

if feature_idx not in self.ice_data:
    raise ValueError("ICE data not computed. Run compute_ice() first.")

data = self.ice_data[feature_idx]
feature_grid = data["feature_grid"]
ice_curves = data["ice_curves"]
feature_name = data["feature_name"]

plt.figure(figsize=figsize)
plt.imshow(ice_curves, aspect="auto", cmap="RdYlBu_r",
↪interpolation="bilinear")
plt.colorbar(label="Tumor Probability")

n_ticks = 10
tick_indices = np.linspace(0, len(feature_grid) - 1, n_ticks, dtype=int)
plt.xticks(tick_indices, [f"{feature_grid[i]:.2f}" for i in
↪tick_indices])
plt.xlabel(feature_name, fontsize=12)
plt.ylabel("Sample Index", fontsize=12)
plt.title(f"ICE Heatmap for {feature_name}", fontsize=14)
plt.tight_layout()
plt.show()

# Reference Explanation
print(f"\n[Reference: ICE Heatmap → {feature_name}]")
print("• Each row = one patient/sample, Columns = feature values.")
print("• Color shows tumor probability (blue=low, red=high).")
print("• Horizontal bands → stable predictions across patients.")
print("• Vertical gradients → strong feature effect on tumor risk.")
print("• Uneven patches → possible feature interactions.")
print("-" * 100)

def compute_ice_variance(self, feature_idx):
    if feature_idx not in self.ice_data:
        raise ValueError("ICE data not computed. Run compute_ice() first.")
    ice_curves = self.ice_data[feature_idx]["ice_curves"]
    return np.var(ice_curves, axis=0)

def identify_feature_interactions(self, feature_idx, variance_threshold=0.
↪01):
    variance = self.compute_ice_variance(feature_idx)
    high_variance_regions = variance > variance_threshold
    return {
        "variance": variance,
        "high_variance_regions": high_variance_regions,
        "interaction_strength": np.mean(variance),
        "feature_name": self.ice_data[feature_idx]["feature_name"],

```

```

    }

class BrainTumorICEAnalysis:
    def __init__(self):
        self.model = None
        self.scaler = StandardScaler()
        self.ice_explainer = None
        self.feature_names = None
        self.interaction_summary = {}

    def create_sample_features(self, n_samples=1000):
        np.random.seed(42)
        features = {
            "tumor_area": np.random.gamma(2, 50, n_samples),
            "intensity_mean": np.random.normal(128, 30, n_samples),
            "intensity_std": np.random.normal(25, 8, n_samples),
            "contrast_ratio": np.random.beta(2, 5, n_samples),
            "edge_density": np.random.exponential(0.02, n_samples),
            "symmetry_score": np.random.normal(0.8, 0.15, n_samples),
            "texture_entropy": np.random.normal(4.5, 1.2, n_samples),
            "circularity": np.random.beta(3, 2, n_samples),
            "compactness": np.random.beta(4, 3, n_samples),
            "location_x": np.random.uniform(0, 256, n_samples),
            "location_y": np.random.uniform(0, 256, n_samples),
        }
        df = pd.DataFrame(features)
        tumor_prob = (
            0.3 * (df["tumor_area"] > 100)
            + 0.2 * (df["intensity_mean"] < 100)
            + 0.2 * (df["contrast_ratio"] > 0.6)
            + 0.15 * (df["edge_density"] > 0.03)
            + 0.15 * (df["symmetry_score"] < 0.7)
        )
        tumor_prob += np.random.normal(0, 0.1, n_samples)
        df["has_tumor"] = (tumor_prob + np.random.normal(0, 0.2, n_samples) > 0.
↪4).astype(int)
        self.feature_names = list(features.keys())
        return df

    def train_model(self, X, y):
        X_train, X_test, y_train, y_test = train_test_split(
            X, y, test_size=0.2, random_state=42, stratify=y
        )
        X_train_scaled = self.scaler.fit_transform(X_train)
        X_test_scaled = self.scaler.transform(X_test)

```

```

        self.model = RandomForestClassifier(
            n_estimators=100, max_depth=10, random_state=42,
            ↪class_weight="balanced"
        )
        self.model.fit(X_train_scaled, y_train)

        y_pred = self.model.predict(X_test_scaled)
        print("Model Performance:")
        print(classification_report(y_test, y_pred))

        self.ice_explainer = ICEExplainer(self.model, self.feature_names)
        return X_train_scaled, X_test_scaled, y_train, y_test

    def run_ice_analysis(self, X, features_to_analyze=None):
        if features_to_analyze is None:
            features_to_analyze = [0, 1, 2, 3, 4]

        print("Running ICE Analysis...")
        for feature_idx in features_to_analyze:
            print(f"\nAnalyzing Feature: {self.feature_names[feature_idx]}")
            self.ice_explainer.compute_ice(X, feature_idx)
            self.ice_explainer.plot_ice_curves(feature_idx, max_curves=30)
            self.ice_explainer.plot_ice_heatmap(feature_idx)
            interaction = self.ice_explainer.
            ↪identify_feature_interactions(feature_idx)
            self.interaction_summary[self.feature_names[feature_idx]] =
            ↪interaction["interaction_strength"]

    def compare_ice_across_features(self, X, features_to_compare=None):
        if features_to_compare is None:
            features_to_compare = [0, 1, 2, 3]

        fig, axes = plt.subplots(2, 2, figsize=(15, 12))
        axes = axes.ravel()

        for i, feature_idx in enumerate(features_to_compare):
            if feature_idx not in self.ice_explainer.ice_data:
                self.ice_explainer.compute_ice(X, feature_idx)

            data = self.ice_explainer.ice_data[feature_idx]
            feature_grid = data["feature_grid"]
            ice_curves = data["ice_curves"]
            feature_name = data["feature_name"]

            ax = axes[i]
            n_curves = min(20, ice_curves.shape[0])

```

```

        indices = np.random.choice(ice_curves.shape[0], n_curves,
↪replace=False)

        for idx in indices:
            ax.plot(feature_grid, ice_curves[idx], alpha=0.3, linewidth=1)

        pdp = np.mean(ice_curves, axis=0)
        ax.plot(feature_grid, pdp, color="red", linewidth=3, alpha=0.8)

        ax.set_xlabel(feature_name)
        ax.set_ylabel("Tumor Probability")
        ax.set_title(f"ICE: {feature_name}")
        ax.grid(True, alpha=0.3)

    plt.tight_layout()
    plt.suptitle("ICE Curves Comparison Across Features", fontsize=16, y=1.
↪02)
    plt.show()

    print("\n[Reference: Multi-Feature Comparison]")
    print("• Features with steep/red PDP = stronger predictors of tumor_
↪presence.")
    print("• Flat PDP = weak effect.")
    print("• Wide spread between ICE curves = higher sample-level_
↪variability.")
    print("-" * 100)

    def generate_summary_report(self):
        print("\n===== FINAL SUMMARY REPORT =====")
        feature_importance = self.model.feature_importances_
        importance_df = pd.DataFrame(
            {"Feature": self.feature_names, "Importance": feature_importance,
            "InteractionStrength": [self.interaction_summary.get(f, 0) for f_
↪in self.feature_names]}
        ).sort_values("Importance", ascending=False)

        print("\nTop Features by Importance & ICE Interaction Strength:")
        print(importance_df.head(10).to_string(index=False))

    plt.figure(figsize=(12, 6))
    sns.barplot(data=importance_df, x="Importance", y="Feature")
    plt.title("Feature Importance (Random Forest)")
    plt.tight_layout()
    plt.show()

    plt.figure(figsize=(12, 6))
    sns.barplot(data=importance_df, x="InteractionStrength", y="Feature")

```

```

plt.title("Feature Interaction Strength (ICE Variance)")
plt.tight_layout()
plt.show()

print("\nInterpretation:")
print("1. Importance = how much the feature contributes to model splits.
↪")
print("2. Interaction Strength = how differently samples respond to the
↪feature.")
print("3. A feature may be important (high importance) but uniform (low
↪interaction).")
print("4. A feature with high interaction strength → affects patients
↪in heterogeneous ways.")
print("=====")

def main():
    print("Brain Tumor Detection - ICE Analysis Demo")
    print("=" * 50)

    analysis = BrainTumorICEAnalysis()
    print("Creating sample features...")
    df = analysis.create_sample_features(n_samples=1000)
    print(f"Dataset shape: {df.shape}")
    print(f"Tumor cases: {df['has_tumor'].sum()}")
    print(f"Non-tumor cases: {len(df) - df['has_tumor'].sum()}")

    X = df.drop("has_tumor", axis=1)
    y = df["has_tumor"]

    print("\nTraining Random Forest model...")
    X_train, X_test, y_train, y_test = analysis.train_model(X, y)

    print("\nRunning ICE Analysis on key features...")
    analysis.run_ice_analysis(X_test, features_to_analyze=[0, 1, 2, 3, 5])

    print("\nComparing ICE effects across features...")
    analysis.compare_ice_across_features(X_test)

    analysis.generate_summary_report()

if __name__ == "__main__":
    main()

```

Brain Tumor Detection - ICE Analysis Demo

=====

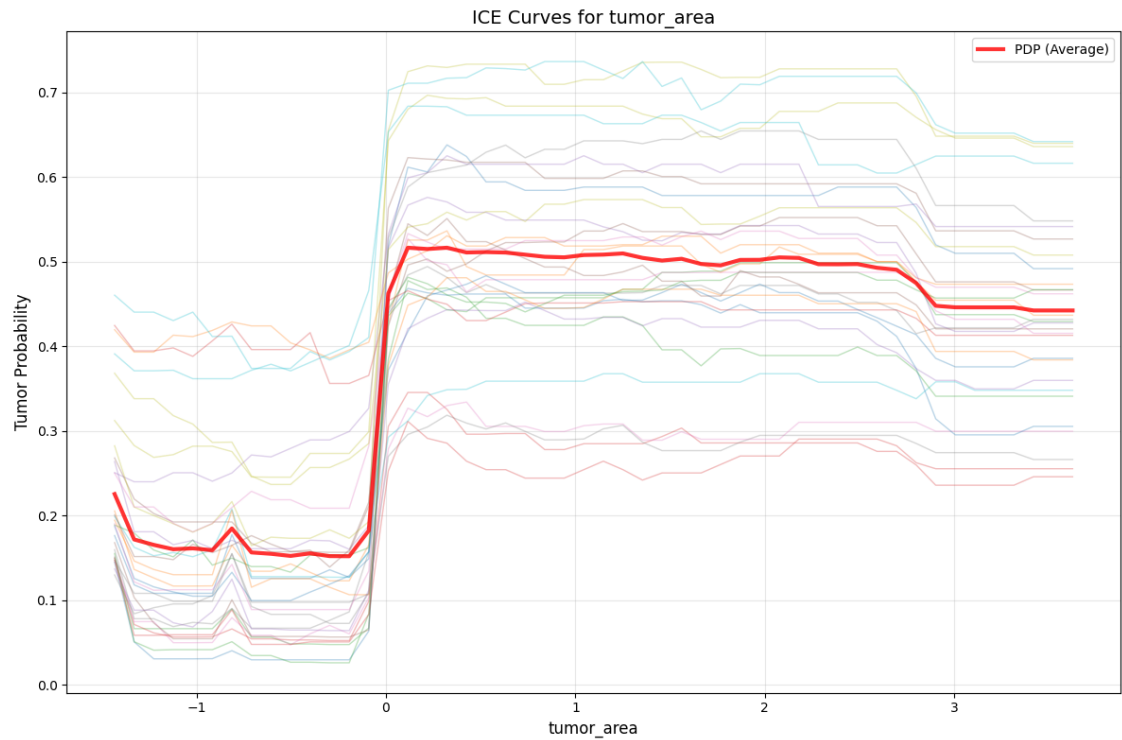
Creating sample features...
Dataset shape: (1000, 12)
Tumor cases: 287
Non-tumor cases: 713

Training Random Forest model...
Model Performance:

| | precision | recall | f1-score | support |
|--------------|-----------|--------|----------|---------|
| 0 | 0.80 | 0.89 | 0.84 | 143 |
| 1 | 0.61 | 0.44 | 0.51 | 57 |
| accuracy | | | 0.76 | 200 |
| macro avg | 0.70 | 0.66 | 0.68 | 200 |
| weighted avg | 0.74 | 0.76 | 0.75 | 200 |

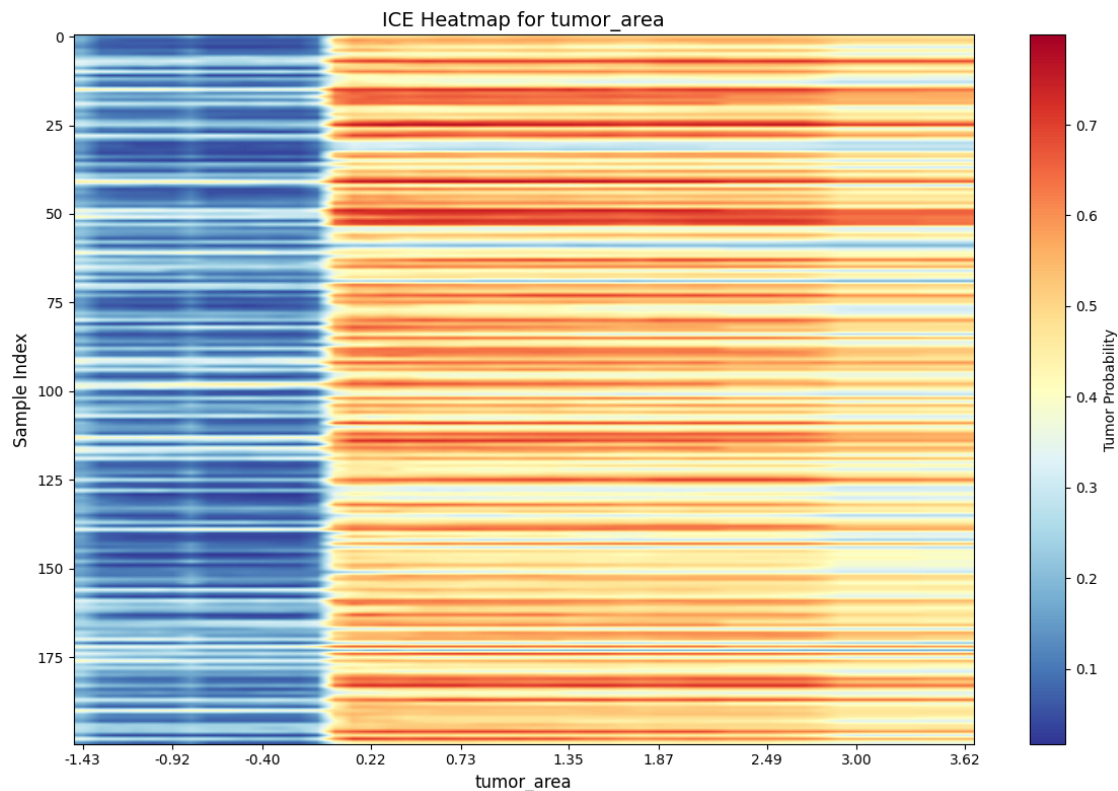
Running ICE Analysis on key features...
Running ICE Analysis...

Analyzing Feature: tumor_area



[Reference: ICE Plot → tumor_area]

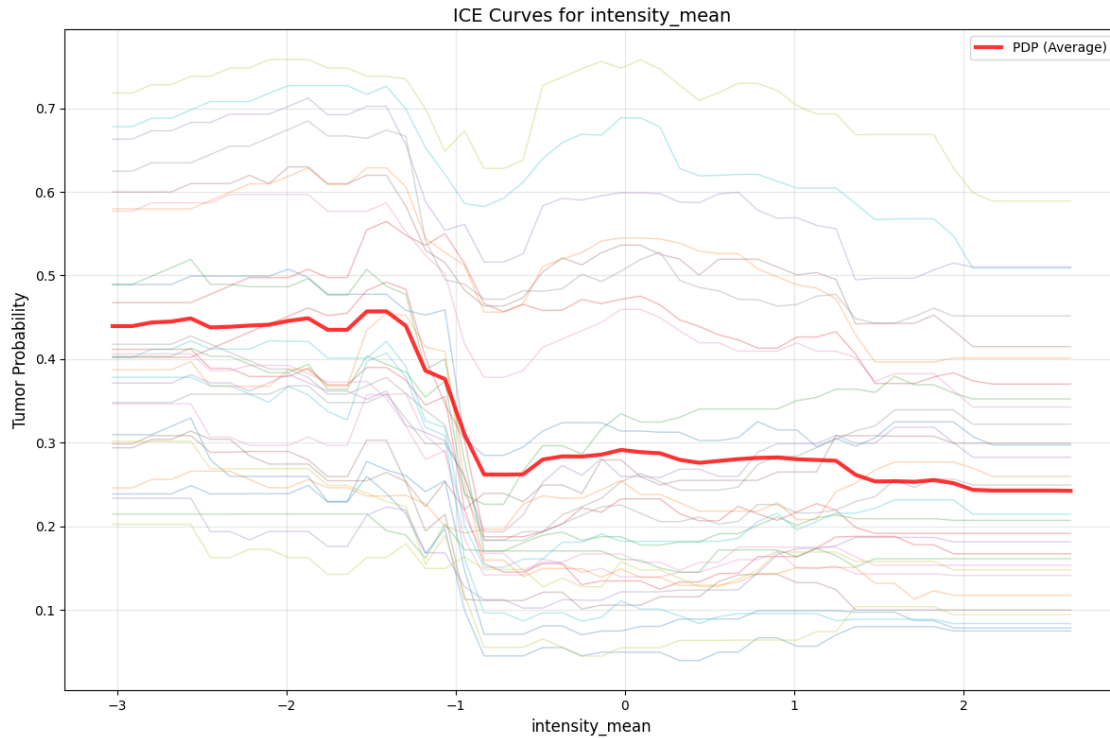
- Grey curves = how individual patient predictions change as this feature varies.
 - Red PDP line = average population effect.
- Varied slopes → Strong feature effect; some patients respond differently.
 Samples with sharp rises/drops = more sensitive to this feature.
-
-



[Reference: ICE Heatmap → tumor_area]

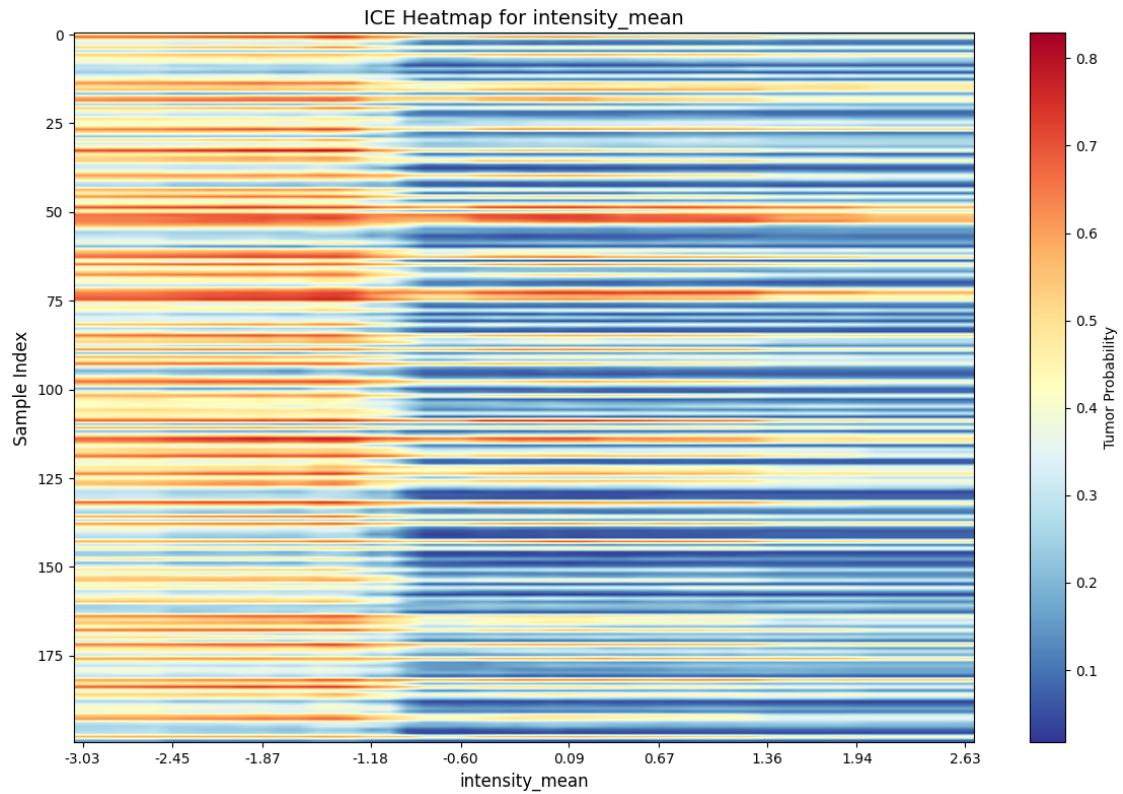
- Each row = one patient/sample, Columns = feature values.
 - Color shows tumor probability (blue=low, red=high).
 - Horizontal bands → stable predictions across patients.
 - Vertical gradients → strong feature effect on tumor risk.
 - Uneven patches → possible feature interactions.
-
-

Analyzing Feature: intensity_mean



[Reference: ICE Plot → intensity_mean]

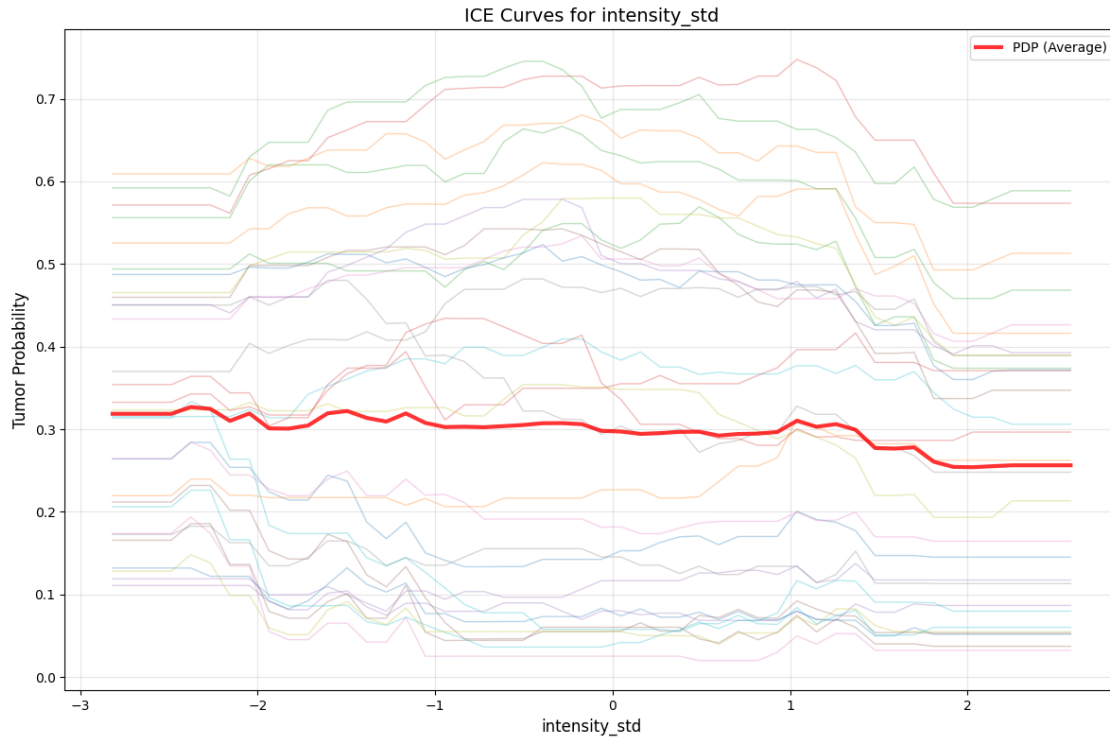
- Grey curves = how individual patient predictions change as this feature varies.
 - Red PDP line = average population effect.
- Varied slopes → Strong feature effect; some patients respond differently.
Samples with sharp rises/drops = more sensitive to this feature.
-
-



[Reference: ICE Heatmap → intensity_mean]

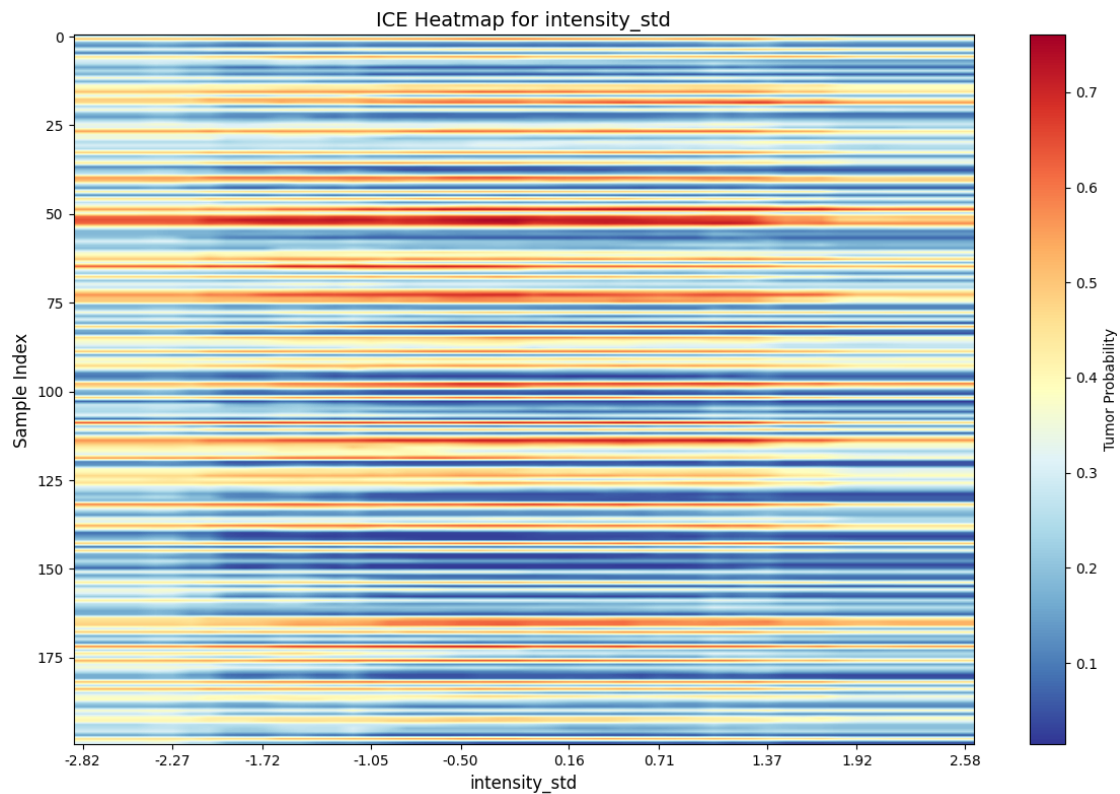
- Each row = one patient/sample, Columns = feature values.
- Color shows tumor probability (blue=low, red=high).
- Horizontal bands → stable predictions across patients.
- Vertical gradients → strong feature effect on tumor risk.
- Uneven patches → possible feature interactions.

Analyzing Feature: intensity_std



[Reference: ICE Plot → intensity_std]

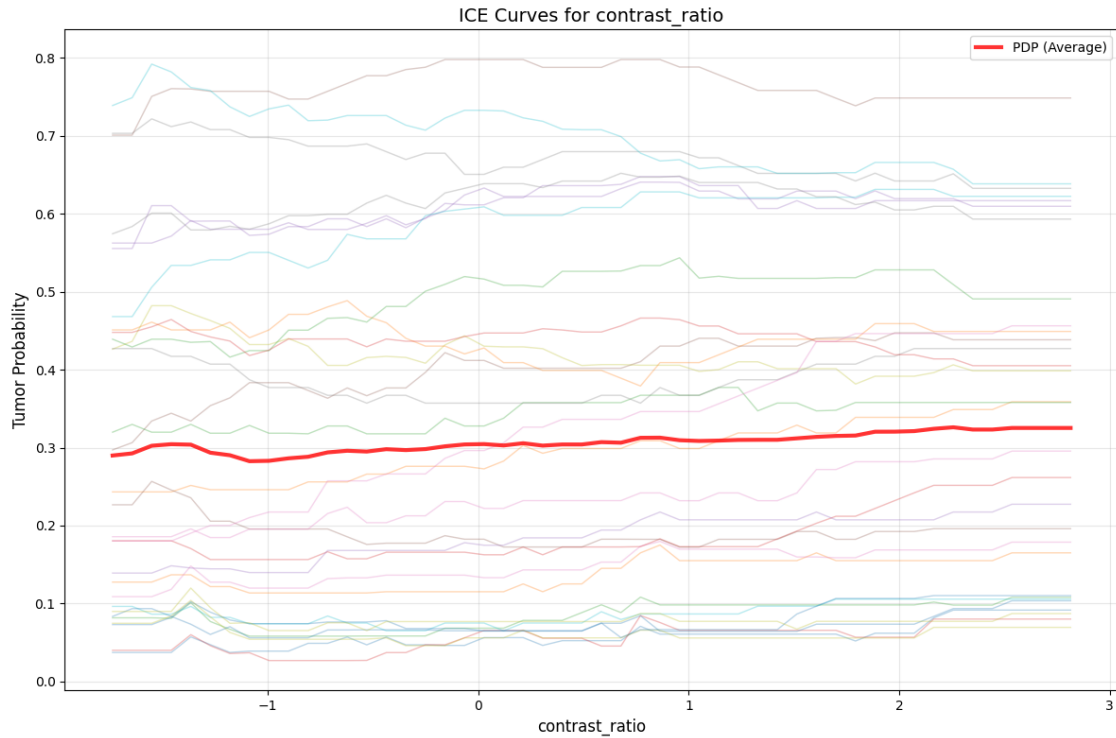
- Grey curves = how individual patient predictions change as this feature varies.
 - Red PDP line = average population effect.
- Varied slopes → Strong feature effect; some patients respond differently.
 Samples with sharp rises/drops = more sensitive to this feature.



[Reference: ICE Heatmap → intensity_std]

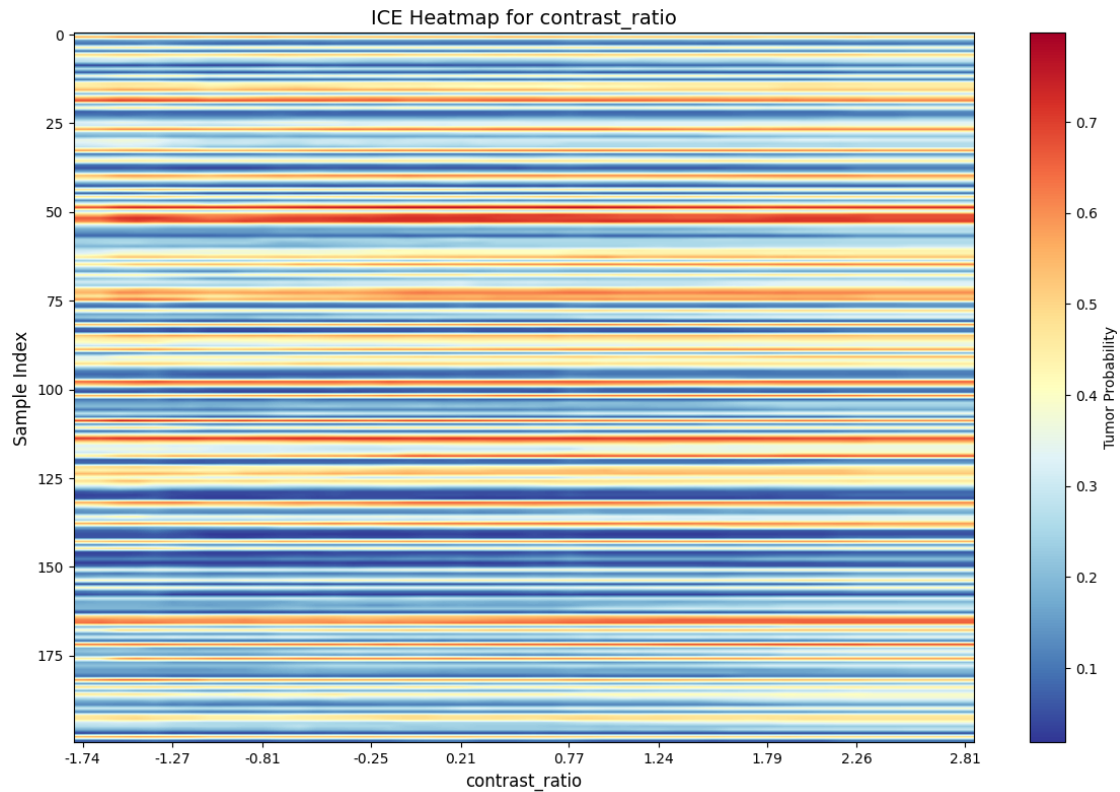
- Each row = one patient/sample, Columns = feature values.
- Color shows tumor probability (blue=low, red=high).
- Horizontal bands → stable predictions across patients.
- Vertical gradients → strong feature effect on tumor risk.
- Uneven patches → possible feature interactions.

Analyzing Feature: contrast_ratio



[Reference: ICE Plot → contrast_ratio]

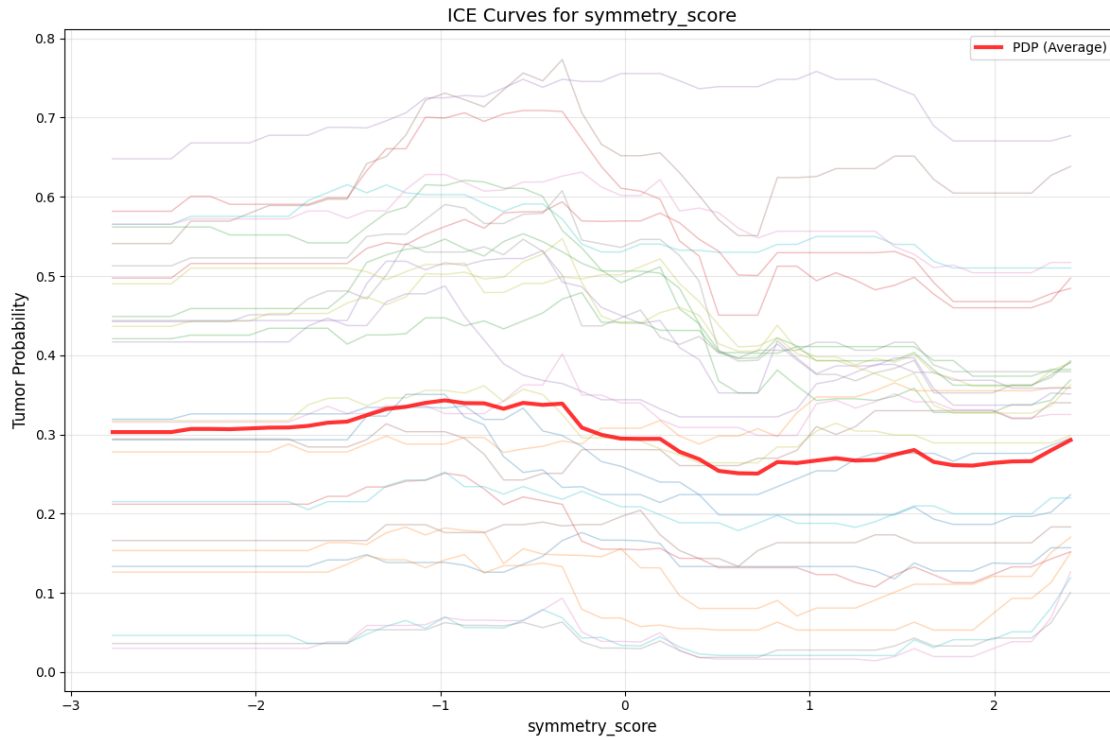
- Grey curves = how individual patient predictions change as this feature varies.
 - Red PDP line = average population effect.
- Varied slopes → Strong feature effect; some patients respond differently.
 Samples with sharp rises/drops = more sensitive to this feature.



[Reference: ICE Heatmap → contrast_ratio]

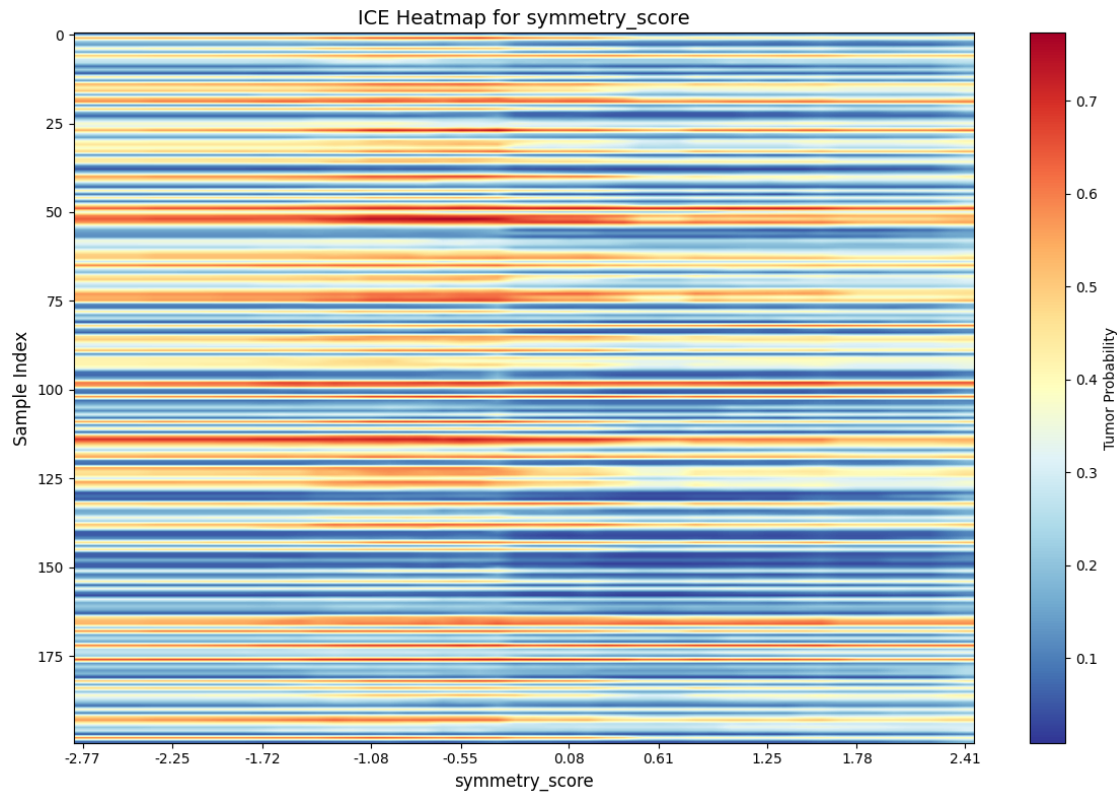
- Each row = one patient/sample, Columns = feature values.
- Color shows tumor probability (blue=low, red=high).
- Horizontal bands → stable predictions across patients.
- Vertical gradients → strong feature effect on tumor risk.
- Uneven patches → possible feature interactions.

Analyzing Feature: symmetry_score



[Reference: ICE Plot → symmetry_score]

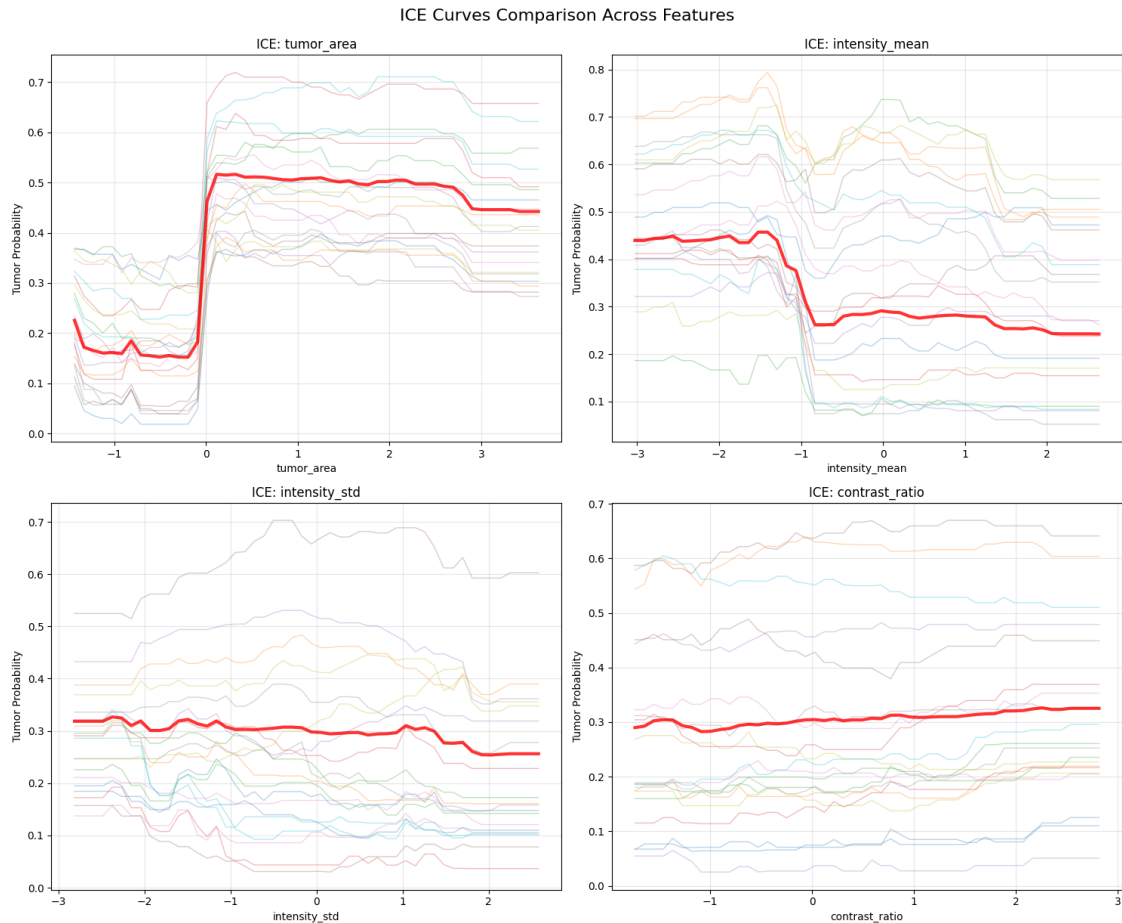
- Grey curves = how individual patient predictions change as this feature varies.
 - Red PDP line = average population effect.
- Varied slopes → Strong feature effect; some patients respond differently.
 Samples with sharp rises/drops = more sensitive to this feature.



[Reference: ICE Heatmap → symmetry_score]

- Each row = one patient/sample, Columns = feature values.
- Color shows tumor probability (blue=low, red=high).
- Horizontal bands → stable predictions across patients.
- Vertical gradients → strong feature effect on tumor risk.
- Uneven patches → possible feature interactions.

Comparing ICE effects across features...



[Reference: Multi-Feature Comparison]

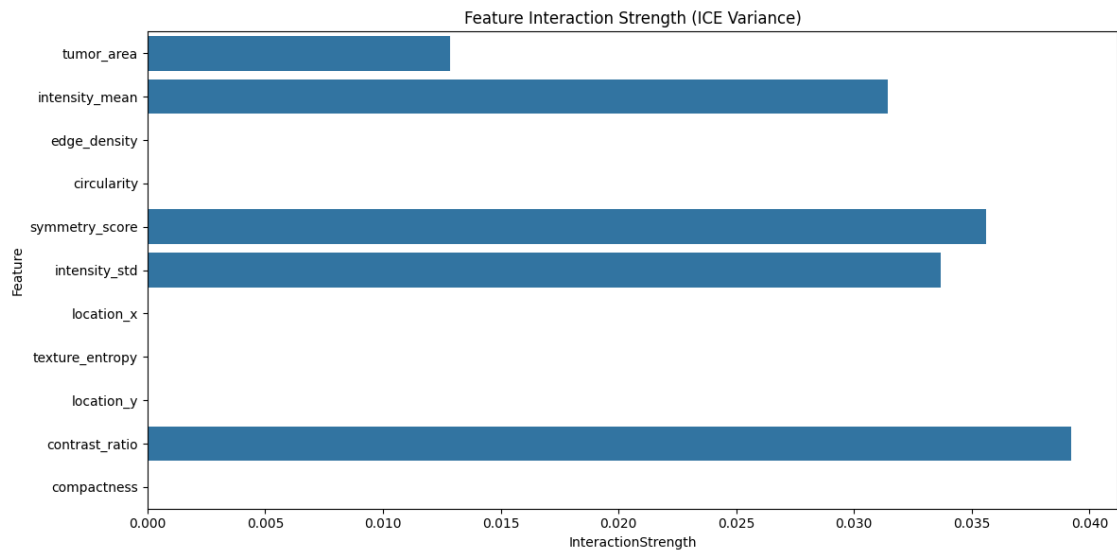
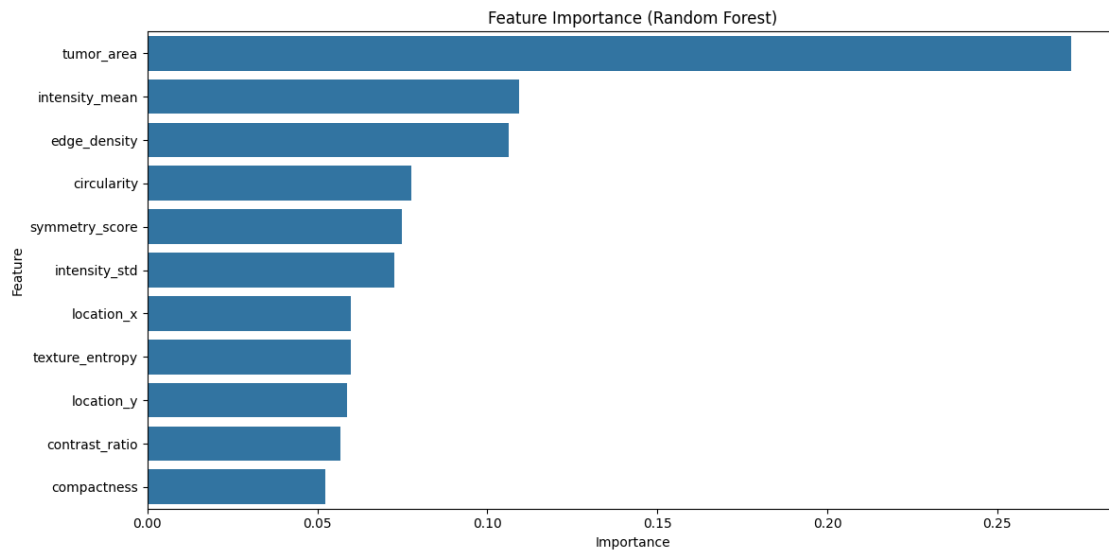
- Features with steep/red PDP = stronger predictors of tumor presence.
- Flat PDP = weak effect.
- Wide spread between ICE curves = higher sample-level variability.

===== FINAL SUMMARY REPORT =====

Top Features by Importance & ICE Interaction Strength:

| Feature | Importance | InteractionStrength |
|----------------|------------|---------------------|
| tumor_area | 0.271776 | 0.012858 |
| intensity_mean | 0.109288 | 0.031446 |
| edge_density | 0.106344 | 0.000000 |
| circularity | 0.077583 | 0.000000 |
| symmetry_score | 0.074702 | 0.035612 |
| intensity_std | 0.072510 | 0.033689 |
| location_x | 0.059911 | 0.000000 |

| | | |
|-----------------|----------|----------|
| texture_entropy | 0.059808 | 0.000000 |
| location_y | 0.058837 | 0.000000 |
| contrast_ratio | 0.056849 | 0.039229 |



Interpretation:

1. Importance = how much the feature contributes to model splits.
2. Interaction Strength = how differently samples respond to the feature.
3. A feature may be important (high importance) but uniform (low interaction).
4. A feature with high interaction strength → affects patients in heterogeneous ways.

=====

[]: