Department of Pathology and Laboratory Medicine

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Laboratory Director; Mahul B. Amin, M.D.

CLIA # 05D0541033

Patient:

Age/Sex.

Hospital No: Date of Birth Pathologist: Serguei I. Bannykh, M.D.

Assistant:

Date of Procedure: 1/20/2014 Date Received: 1/21/2014 Ordering M.D.: CHIRAG G PATIL Copies To:

Accession Number:

PHILLIP LEVINE

Location: 8-NE 8017

SURGICAL PATHOLOGY REPORT

DIAGNOSIS:

- A. BRAIN, RIGHT FRONTAL, BIOPSY #1:
 - Glioblastoma multiforme, WHO grade IV, densely cellular, 1% of tumor necrosis
- B. BRAIN, RIGHT FRONTAL, BIOPSY #2:
 - Glioblastoma multiforme, WHO grade IV, densely cellular, 5% of tumor necrosis
- C. BRAIN, RIGHT FRONTAL, BIOPSY #3:
 - Cortex (30%) and white matter (70%) with minimal infiltration by tumor nuclei
- D. BRAIN, RIGHT FRONTAL, BIOPSY #4:
 - Glioblastoma multiforme, WHO grade IV, densely cellular, 0.5% of tumor necrosis
- E. BRAIN, RIGHT FRONTAL, BIOPSY #5:
 - Glioblastoma multiforme, minimal to moderate cellularity, 0% of tumor necrosis
- F. BRAIN, RIGHT FRONTAL, BIOPSY #6:
 - Glioblastoma multiforme, moderately cellular, 0% of tumor necrosis
- G. BRAIN, RIGHT FRONTAL, EXCISIONAL BIOPSY:
 - Glioblastoma multiforme, WHO grade IV

HISTORY:

Malignant neoplasm of brain, unspecified site

MICROSCOPIC FINDINGS:

Sections reveal predominantly viable densely cellular glioblastoma multiforme with up to 10% of cells within the biopsy being inflammatory cells and macrophages. The tumor demonstrates high mitotic activity and shows florid endothelial proliferation and some necrosis.

IMMUNOHISTOCHEMISTRY:

[Study (Test (Clone)]	Hose III	Results of the design of the last of the second
cMYC	G4	Up to 10% of tumor nuclei positive (1+)
OLIG2	G4	Up to 90% of tumor nuclei positive
MGMT	G4	Up to 20% of tumor nuclei positive (1+)
IDH1 R132H mutant	G4	100% of tumor cells are positive.
CD3	G4	Less than 0.5 % of tissue cellularity are T-cells
CD163	G4	Up to 5% of tissue cellularity are macrophages

Patient Case(s):

CEDARS SINAI MEDICAL CENTER.

PATIENT:

ACCESSION #:

TIA	G4	Less than 0.01% of tissue cellularity are positive cells
CD8	G4	Up to 1% of tissue cellularity are CD8 positive T-cells
GD4	G4	Up to 5% of tissue cellularity are CD4 positive T-cells

^{*}These studies were interpreted in conjunction with appropriate positive and negative controls which demonstrated the expected positive and negative reactivity.

GROSS:

A. BIOPSY 1

Labeled designated "biopsy 1", and received in formalin is a 1.2 x 0.4 x 0.2 cm

irregular portion of soft pale tan-yellow tissue. Entirely submitted. Slide key:

A1. 1

B. BIOPSY 2

Labeled ' , designated "biopsy 2", and received in formalin is a 1.1 x 0.4 x 0.2 cm irregular portion or $so\pi$ pink-gray tissue with focal areas of hemorrhage. Entirely submitted. Slide key: B1. 1

C. BIOPSY 3

Labeled , designated "biopsy 3", and received in formalin is a $0.9 \times 0.6 \times 0.2$ cm irregular portion of soft pale tan-gray tissue with pinpoint areas of hemorrhage. Entirely submitted. Slide key:

C1. 1

D. BIOPSY 4

Labeled designated "biopsy 4", and received in formalin is a $0.6 \times 0.4 \times 0.2$ cm irregular portion of soft pale tan tissue with pinpoint areas of hemorrhage. Entirely submitted. Slide key: D1. 1

E. BIOPSY 5

Labeled designated "biopsy 5", and received in formalin is a $0.5 \times 0.3 \times 0.2$ cm irregular portion of soft pale tan tissue with pinpoint areas of hemorrhage. Entirely submitted. Slide key: E1. 1

F. BIOPSY 6

Labeled designated "biopsy 6", and received in formalin is a 0.8 x 0.3 x 0.2 cm irregular portion of soft pale tan tissue. Entirely submitted. Slide key: F1. 1

G. RIGHT FRONTAL TUMOR

Labeled lesignated "right frontal tumor", and received in formalin is a 4.4 x 3.6 x 1.3 cm aggregate of soft pale tan-gray focally necrotic tissue with areas of congestion. Serially sectioned and entirely submitted. Slide key:

G1-G5. 3 each G6, G7. 2 each

Gross dictated by Jocelyn Brown, PA (ASCP):plh/J#2943625 1/21/2014 (2946387)

I have personally examined the specimen, interpreted the results, reviewed the report and signed it electronically. Serguel I. Bannykh, M.D. Electronically signed 1/23/2014 11:14:06AM