**Case1:** Malignant breast lesion.

**Input:**

**Model classification results** Malignant breast lesion.

**Chief Complaint:** A mass in the left breast was discovered for 1 week.

**Physical Examination:** Both breasts are symmetrical, with the two nipples at the same height. A mass approximately 1\*2cm in size can be seen in the outer upper quadrant of the left breast. It is medium in texture, with unclear boundaries, good mobility, no local skin redness or swelling, no local skin ulceration, no nipple discharge, no orange peel-like changes, no nipple depression, and no lymph node enlargement is palpated under the armpit.

**Additional Information:** A 48-year-old female.

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**Output:**

**Preliminary Diagnosis:**

1. Intraductal papilloma of the breast: Patients with this disease generally present with nipple discharge or bleeding, and a cherry sized and tough lump can be palpated near the areola. The milk duct can assist in diagnosis, and it will be ruled out after completing relevant examinations.

2. Fibroadenoma of the breast: This disease can also cause breast lumps, which are common in young women. The lumps are mostly circular or semicircular in shape, with clear boundaries, high mobility, multiple hard masses, and sizes that vary with the menstrual cycle. Intraoperative pathology can assist in diagnosis, but they can be ruled out after completing relevant examinations.

**Justification:**

Female: 48 years old, admitted to the hospital due to the discovery of a left atrial swelling that lasted for more than a week. Physical examination showed that the bilateral atria were symmetrical, and the two nipples were of equal height. There was a mass of about 1 "2cm in size visible in the upper outer quadrant of the left breast, with medium texture, unclear boundaries, good mobility, no local skin redness, no local skin rupture, no nipple discharge, no orange skin like changes, no nipple depression, and no palpable lymph node enlargement in both armpits.Auxiliary examination: MRI examination report at 13:00 on March 7, 2025: Examination result shows a nodule in the lower outer quadrant of the left breast, BI-RADS class 4B, and a biopsy is recommended;Small nodules on both sides of the breast, BI-RADS class 3, please follow up based on clinical findings.On March 14, 2025 at 17:00: Routine pathological examination report: The examination result (left breast mass biopsy) suggests invasive cancer, due to special dry morphology, few punctured tumor tissues, and clinical imaging showing small and multiple masses. It is recommended to consult with a higher-level hospital.Tumor IHC: ER (about 85%, strong), PR (about 80%, strong): Her-2 (0, with cell membrane staining), Ki-67 (less ideal), P53 (less ideal), E-cad (membrane+)、GATA-3(+)、Syn(-);Muscle epithelium CK5/6 (-), S-100 (-) Calponin (-), P63 (-), CD10 (-).Diagnosed accordingly.

**Recommended Follow-Up Examinations:**

1. Complete inspection and examination (three major routine tests, blood biochemistry, complete coagulation set, swelling indicators, etc. Lung CT to differentiate pulmonary parenchymal lesions or pleural cavity abnormalities).

2. Please have the superior physician examine the patient;

3. If there are no contraindications, recent surgical treatment can be arranged.

**Additional Notes:**

Urgent referral to a breast surgeon/oncologist for multidisciplinary management.

Discuss the possibility of a fibroadenoma or other benign lesions (e.g., complex sclerosing lesion) but prioritize ruling out malignancy.

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**Clinical diagnosis result:**

**Clinical diagnosis result:** 1. Improve the inspection and examination (three routine tests, blood biochemistry, complete set of coagulation, tumor indicators, etc.). Pulmonary CT for differentiating pulmonary parenchymal lesions or pleural cavity abnormalities 2. Please ask the senior physician to examine the patient. 3. If there are no contraindications, surgical treatment can be arranged in the near future.

**Case2:** Gallbladder disease

**Input:**

**Model classification results:** Gallbladder disease

**Chief Complaint:** A fever of 3 days.

**Physical Examination:** After hospitalization, physical examination revealed tenderness in the abdomen, and a history of gallbladder stones was found during a physical examination.

**Additional Information:** An elderly woman has many underlying diseases and urinary tract infections.

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**Output:**

**Preliminary Diagnosis:**

Acute cholecystitis (likely calculous, given history of gallbladder stones)

Possible concomitant cholangitis or systemic infection (given fever and underlying conditions)

Secondary urinary tract infection (UTI), if urinalysis supports infection

**Justification:**

Fever + abdominal tenderness + gallstones strongly suggests acute cholecystitis (per Tokyo Guidelines 2018 criteria).

History of gallstones increases likelihood of calculous cholecystitis, though acalculous cholecystitis should not be entirely ruled out in elderly patients with comorbidities.

UTI may be contributing to systemic symptoms (if confirmed by urinalysis/culture).

Elderly patients often present atypically, with sepsis being a higher risk.

**Recommended Follow-Up Examinations:**

**Laboratory:**

CBC (expect leukocytosis), CRP, liver function tests (ALT/AST/ALP/bilirubin), amylase/lipase (r/o pancreatitis).

Blood cultures if fever is high/sepsis suspected.

Urinalysis + culture (given UTI history).

**Imaging:**

Abdominal ultrasound (urgent): Assess gallbladder wall thickening, pericholecystic fluid, Murphy’s sign, ductal dilation, or abscess.

CT abdomen/pelvis (if unclear or complications suspected): Evaluate for perforation/gangrene.

MRCP (if cholangitis or choledocholithiasis suspected): Assess common duct stones.

**Other:**

Surgical consultation (early if signs of gangrene/peritonitis).

Consider hepatobiliary scintigraphy (HIDA scan) if diagnosis remains uncertain.

**Note:** Monitor vitals closely for sepsis. Start empiric antibiotics (e.g., piperacillin-tazobactam) if infection is confirmed, adjusting per culture results. Pain control and NPO status should be maintained pending further evaluation.

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**Clinical diagnosis result:**

**Clinical diagnosis result:** With the consent of the family, a gallbladder puncture and aspiration under ultrasound was performed simultaneously