

## SURGICAL PATHOLOGY

Case Number :

UUID:793D6E81-1D43-4C8F-9490-F55217AF4E8E  
TCGA-ZH-ABY5-01A-PR

Redacted



### Diagnosis:

A: Pericaval mass, biopsy

- Metastatic adenocarcinoma present in one of five lymph nodes (1/5) (see comment)
- Largest focus measures 1.5 cm in diameter
- Extracapsular extension present

B: Gallbladder, cholecystectomy

- Cholesterolosis
- No carcinoma identified

C: Liver, segments 6, 7, and 8, plus cava and left adrenal gland, en bloc resection

Tumor histologic type: Poorly differentiated adenocarcinoma, favor cholangiocarcinoma, mass forming subtype (see comment)

Histologic grade: 3 of 4 (poorly differentiated)

Tumor location: Segments 8 and 1

Tumor size: 5.8 cm

Focality/extent: Multifocal

Tumor necrosis/treatment effect: Not identified

Vascular invasion: No definite lymphovascular space invasion identified; adenocarcinoma invades wall of inferior vena cava

Perineural invasion: Not identified

Capsular invasion: Present, adenocarcinoma invades perihepatic soft tissues and adrenal gland (designated as left adrenal gland on specimen container)

### Margins:

Inferior vena cava margins: Negative

Hepatic parenchymal margin: Negative, 0.85 cm away at closest approach

Perihepatic soft tissue margins: Negative

Lymph nodes: See specimen A

ICD-O-3  
Cholangiocarcinoma S160/3  
Site Intrahepatic bile duct C22.1  
7/13/14

Background liver: No steatosis, cholestasis, or ductular reaction identified

AJCC PATHOLOGIC TNM STAGE: pT3 pN1

NOTE: This pathologic stage assessment is based on information available at the time of this report and is subject to change pending clinical review and additional information.

Comment:

The frozen section diagnosis for specimen A is confirmed.

H & E stained sections show a poorly differentiated neoplasm with vast areas of solid growth and focal glandular differentiation. Immunostains are performed on block C8. The malignant cells are positive for AE1/AE3 and OSCAR (pancytokeratin stains). CK7 shows focal positive staining within the malignant cells. CK20, TTF-1, CDX-2, CD56, chromogranin, and synaptophysin are negative. A mucicarmine stain is negative. Given the tumor location and absence of known disease outside of the liver, these findings most likely represent a poorly differentiated intrahepatic cholangiocarcinoma. Other primary adenocarcinomas with CK7 staining include lung, esophagus, stomach, pancreas, small bowel, and gallbladder. Correlation with the clinical and radiologic findings is suggested.

Intraoperative Consult Diagnosis:

An intraoperative consultation is requested by Dr. \_\_\_\_\_ at \_\_\_\_\_ on \_\_\_\_\_

FSA1: Pericaval mass, biopsy

- Carcinoma present; defer to permanent/special stains for final diagnosis

Drs. \_\_\_\_\_ at \_\_\_\_\_ on \_\_\_\_\_ .

Frozen Section Pathologist: \_\_\_\_\_, MD

Clinical History:

\_\_\_\_\_-year-old male with a mass abutting the right hepatic vein and narrowing the IVC by MRI.

Gross Description:

Specimen A is received fresh for frozen section and labeled "pericaval mass" and is a cylindrical piece of tan firm tissue 3.5

in length x 0.5 cm in diameter with a loosely adherent tan nodular mass (1.5 x 1.5 x 0.8 cm). The mass is bisected to reveal a tan gritty cut surface and a representative section is submitted as FSA1 and the remainder is submitted in A2. The tubular fragment is serially sectioned to reveal a lymph node which is submitted in A3,

Specimen B is labeled "gallbladder" and holds a 9.5 x 4.0 x 2.5 cm intact gallbladder. The serosa is dark red and glistening. The lumen is filled with dark red liquid. There are multiple tan granular tissue fragments, loosely adherent to the mucosa which is tan red and velvety. The wall is 0.2 cm thick.

#### Block Summary:

B1 - Cystic duct margin and representative sections of gallbladder wall to include loosely adherent yellow granules  
Tissue remains in formalin.

Specimen C is labeled "segments 6, 7 and 8, cava, left adrenal gland" and holds an en bloc resection weight 255 grams with an overall measurement of 15.4 x 8.4 x 5.6 cm. Attached to the deep edge of the resection is a 4 cm in length x 1.1 cm in diameter large caliber vessel which has a pink, smooth, luminal surface. On one side of the vessel, there is a large segment of liver, roughly 13 x 8.4 x 3.5 cm. The surgical margin of this segment is inked black. On the opposite side of the large caliber vessel there is a 4.5 x 2.9 x 2.8 cm segment of liver. The surgical margin of this segment is inked blue. Adherent to the distal aspect of the large caliber vessel is a 6.5 x 3.1 x 0.6 cm fragment of yellow fibrofatty tissue. Within the tissue, there is a portion of adrenal gland, 2.5 x 2.5 x 1.0 cm. The presumed adrenal gland surgical margin is inked red. The capsule is dark maroon and intact.

Sectioning reveals an approximately 5.8 x 4.0 x 3.8 cm tan firm mass with ill-defined edges. The mass grossly appears to invade into the attached adrenal tissue, and abuts but does not grossly appear to invade into the large caliber vessel. Within the smaller segment of liver there are two satellite similar appearing lesions, roughly 1 cm from the main mass. The mass comes to within 1.0 cm of the black inked surgical margin, is 0.6 cm from the blue inked surgical margin (satellite nodule) and is greater than 1 cm from the proximal and distal large caliber vessel surgical margin. No additional abnormalities are noted. The remainder of the parenchyma is dark brown and unremarkable.

Block Summary:

- C1 - Proximal large caliber vessel margin, en face
- C2 - Distal large caliber vessel margin, en face
- C3-C4 - Mass with respect to larger caliber vessel and adrenal gland, bisected section
- C5 - Additional section of mass, large caliber vessel and adrenal gland
- C6 - Mass with respect to black inked surgical margin
- C7 - Mass with respect to intraparenchymal ductal structures
- C8 - Satellite lesions with respect to blue inked surgical margin, perpendicular
- C9 - Liver away from mass, larger segment
- C10 - Liver away from mass, smaller segment to include capsule

Tissue remains in formalin. Normal and tumor submitted to tissue procurement.

Criteria	Yes	No
Diagnosis Discrepancy		✓
Primary Tumor Site Discrepancy		✓
HIPAA Discrepancy		✓
Prior Malignancy History		✓
Dual/Synchronous Primary Noted		✓
Case is (circle) <u>QUALIFIED</u> / DISQUALIFIED		
Reviewer Initials <u>hw</u> Date Reviewed: <u>12/11/13</u>		