



Results **Surgical Pathology Specimen Source (enter 1 per line): Diaphragmatic Nodule - Frozen**
(Order)

Result Information

Status (Last updated Date/Time)

Final result

Accession #

Result Impression

ICD-O-3

Cholangiocarcinoma 8160/3
Site Intrahepatic bile
duct C22.1

20 4/14/14

SURGICAL PATHOLOGY REPORT

Patient Name:

DOB: [REDACTED] (Age: [REDACTED])

Sex: Female

Soc. Sec. #: [REDACTED]

Accession #: [REDACTED]

Visit #:

Service Date:

Received:

Location:

Client:

Physician(s):

FINAL PATHOLOGIC DIAGNOSIS

A. "Diaphragmatic nodule", biopsy: Benign peritoneal inclusion cyst, no carcinoma.

B. Liver, segment 7, biopsy: Benign liver parenchyma, no carcinoma.

C. Liver, segment 5, biopsy: Benign liver parenchyma with focal fibrosis, no carcinoma.

D. Left bile duct #1, biopsy: Benign bile duct and nerve, no dysplasia or carcinoma.

E. Liver, periductal, biopsy: Adenocarcinoma.

F. Left hepatic artery and lymph node, biopsy:
1. No carcinoma in one lymph node (0/1).
2. Benign fibrovascular tissue.

G. Left hepatic artery, biopsy: Benign fibrovascular tissue, nerve, and adipose tissue, no carcinoma.

H. Bile duct, right anterior sectoral, biopsy: Benign bile duct and nerve, no dysplasia or carcinoma.

I. Liver, left lobe, partial hepatectomy: Adenocarcinoma compatible with cholangiocarcinoma, two foci, 5.1 cm and 2.1 cm respectively, present at the inked resection margin; see comment.

J. Liver, caudate margin, biopsy: Adenocarcinoma, present at the non-inked cauterized margin; see comment.

COMMENT:

The periductal liver tissue (part E), left partial hepatectomy (part I), and caudate margin of liver (part J) specimens show a moderately-differentiated adenocarcinoma with irregular glands in a desmoplastic stroma. Mitotic activity is readily identified (up to 4 mitotic figures/HPF) including atypical mitotic figures. Overall, the morphologic features of the carcinoma are not specific for primary site.

Immunohistochemical stains for CK7, CK19, CK20, and HepPar1 were evaluated on block I5 to further characterize this tumor. Tumor cells are negative for CK20, which argues against a lower GI tract origin and negative for HepPar1, which argues against a hepatocellular carcinoma. The tumor cells show positive staining for CK7 and CK19, which is not specific but is compatible with a cholangiocarcinoma if metastasis can be excluded clinically.

Tumor is transected at the margin of the main left liver lobe specimen (part I). In the separately submitted "caudate margin" (part J) specimen, the liver was received with blue ink on one surface of the specimen. The remaining surgical margins on this specimen were inked black and cauterized tumor is present at the black ink but not at the blue ink surface. Correlation with operative findings is required in order to determine the final margin status.

Liver Tumor, Including Intrahepatic Bile Duct, Synoptic Comment

- Tumor type: Cholangiocarcinoma.
- Histologic grade: Moderately-differentiated.
- Tumor size (maximum diameter of largest lesion); 5.1 cm.
- Tumor necrosis: None.
- Multifocality (more than one tumor separated by nontumorous liver parenchyma): Yes.
- Vascular invasion: Not identified.
- Hepatic capsule: Intact.
- Local extension of tumor: Within liver.
- Hepatic surgical margins: See comments above.
- Bile duct margin (for cholangiocarcinoma): Negative in the separately submitted bile duct specimens (parts D and H).
- Non-neoplastic liver: No significant pathologic abnormality.
- Lymph node status: Negative; total number of nodes examined: 1.
- AJCC Stage: pT3aN0.

The immunohistochemical stains reported above were developed and their performance characteristics determined by the Department of Pathology. They have not been cleared or approved by the U. S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. These tests are used for clinical purposes. They should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 ("CLIA") as qualified to perform high-complexity clinical testing.

Specimen(s) Received

- A:Diaphragmatic Nodule (FS)
- B:Liver biopsy segment 7 (FS)
- C:Segment 5 liver lesion (FS)
- D:Left bile duct #1, ink marks distal margin of interest (FS)
- E:Periductal liver tissue (FS)
- F:Replaced left hepatic artery and left lymph node
- G:Left hepatic artery lymphovascular tissue
- H:Right Anterior sectoral bile duct
- I:Extended left hepatectomy with caudate-en-bloc
- J:Additional caudate margin of liver

Intraoperative Diagnosis

FS1 (A) Diaphragmatic nodule, biopsy: Benign epithelial-lined simple cyst consistent with peritoneal inclusion cyst. Dr. agrees. (Dr.

FS2 (B) Liver, segment 7, biopsy: Liver parenchyma; no definitive lesion identified. (Dr.

FS3 (C) Liver, segment 5, biopsy: Liver with focal fibrosis. No malignancy identified. (Dr.

FS4 (D) Left bile duct #1, ink marks distal margin of interest. biopsy: No high-grade dysplasia or carcinoma. (Dr.

FS5 (E) Periductal liver tissue, biopsy: Malignant neoplasm, favor adenocarcinoma. (Dr.

Clinical History

The patient is a year-old woman with a liver mass. A fine needle aspirate of the liver mass was reported to favor bile duct neoplasm (slides not reviewed at . Clinically, it is suspicious for cholangiocarcinoma.

Gross Description

The case is received in 10 parts, labeled with the patient's name and medical record number.

Part A is received fresh and additionally labeled "diaphragmatic nodule - FS," and consists of a slightly firm, irregular, pink-red tissue fragment (1 x 0.8 x 0.4 cm). The outer surface is inked blue and the specimen is bisected, revealing a fluid-filled (clear fluid) nodule (0.6 x 0.4 x 0.2 cm). The entire specimen is frozen for frozen section diagnosis 1, and subsequently submitted in cassette A1.

Part B is received fresh and additionally labeled "liver biopsy segment 7 - frozen," and consists of one, soft, brown core of tissue (1.5 x 0.1 x 0.1 cm). The entire specimen is frozen for frozen section diagnosis 2, and subsequently submitted in cassette B1.

Part C is received fresh and additionally labeled "segment 5 liver lesion," and consists of a firm, irregular fragment of pink-red tissue (0.7 x 0.5 x 0.3 cm). The entire specimen is frozen for frozen section diagnosis 3, and subsequently submitted in cassette C1.

Part D is received fresh and additionally labeled "left bile duct #1 - frozen, ink marks distal margin," and consists of a soft, irregular fragment of pink-tan tissue (0.3 x 0.2 x 0.1 cm). There is purple ink at one end. The specimen is entirely submitted for frozen diagnosis #4, and the frozen section remnant is submitted in cassette D1.

Part E is received fresh and additionally labeled "periductal liver tissue," and consists of two firm, red-brown soft tissue fragments (1 x 0.5 x 0.4 cm and 0.6 x 0.5 x 0.4 cm), entirely submitted for frozen section analysis, frozen section 5(E), with the remnant submitted in cassette E1.

Part F is received fresh and additionally labeled "replaced hepatic artery lymph node left," and consists of an irregular fragment of rubbery, deep yellow-pink to red, lobulated fibroadipose tissue (1 x 0.7 x 0.2 cm). The specimen is entirely submitted intact in cassette F1.

Part G is received fresh and additionally labeled "L hepatic artery lymphovascular tissue," and consists of two fragments of irregular, rubbery, pink to deep red, fibroadipose tissue (1.3 x 0.5 x 0.2 cm and 1.4 x 1 x 0.2 cm). No obvious lymph nodes are identified. The specimen is entirely submitted intact in cassette G1.

Part H is received fresh and additionally labeled "RT anterior sectoral bile duct," and consists of one cylindrical fragment of deep red, rubbery, soft tissue (1.2 x 0.3 x 0.2 cm). One surface is inked blue prior to receipt in pathology (inked black). The specimen is entirely submitted intact in cassette H1.

Part I is received fresh and additionally labeled "extended left hepatectomy," and consists of a portion of liver (941 gm; 15.5 cm right to left x 13.6 cm anterior to posterior x 5 cm superior to inferior).

GROSS ABNORMALITIES: The specimen is received with multiple incisions present in the posterior, superior and right surfaces. There is a tan-white, well-circumscribed, lobulated mass that measures 5.1 cm in dimension, in the central portion of the specimen. This mass grossly abuts the cauterized surgical margin over a distance of 4.8 cm. There is an additional 2.1 cm mass in the superior aspect of the specimen that is 0.1 cm from the surgical margin grossly.

The uninvolved liver is red-brown and unremarkable.

ORIENTED BY: Anatomic landmarks.

INKING:

- Black: Surgical margin.

CASSETTES: Representative sections are submitted as follows:

I1: Vascular margin.

I2-I4: 5.1 cm lesion.

I5: 2.1 cm lesion.

I6: Uninvolved liver.

Part J is received fresh and additionally labeled "additional caudate margin liver," and consists of a roughly wedge-shaped portion of markedly cauterized, unoriented brown to red liver (3.7 x 2.7 x 1.2 cm) with numerous black sutures coursing through the specimen. One area of glistening deep red capsule is identified. The specimen is focally inked blue prior to receipt in pathology (re-inked blue; remaining cauterized

**Nodule - Frozen
liver mass**

Lab Collection and Receipt Information

Collect Date Collect Time Collected By Lab Receipt Date Lab Receipt Time

Collection Information

Resulting Agency

Order Provider Info

	Office phone	Pager/beeper	E-mail
Ordering User	--	--	--
Authorizing Provider	--	--	--
Billing Provider	--	--	--

Electronically Signed By:

Electronically Authorized By Electronically Ordered By

Acknowledgement Info

For Placing Order	At	Acknowledged By	Acknowledged On

Order Status for: SURGICAL PATHOLOGY

Parent Status: Completed

Child Orders

(This order does not yet have any children)

Order Requisition

Surgical Pathology Specimen Source (enter 1 per line): Diaphragmatic Nodule - Frozen (Order

Criteria	12/20/13	Yes	No
Diagnosis Discrepancy		✓	
Primary Tumor Site Discrepancy		✓	
HIPAA Discrepancy		✓	
Prior Malignancy History		✓	
Dual/Synchronous Primary Noted		✓	
Case Is [circle]:	QUALIFIED ✓	DISQUALIFIED	
Reviewer Initials	JK	Date Reviewed:	12/19/2013