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SURGICAL PATHOLOGY REPORT

Carcinoma, hepatocellular, NOS 8/70/3 Siti livir C22.c lu 8/24/11

100-0-3

SPECIMEN

A. Liver, right lobeB. Additional right lobe of liver double stitch superior margin, single stitch anterior margin

CLINICAL NOTES

PRE-OP DIAGNOSIS: Hepatic cancer.

FROZEN SECTION DIAGNOSIS

- A. Right lobe of liver, partial resection: Tumor at margin.
- B. Right lobe of liver, additional margin: Margin negative (superior).

GROSS DESCRIPTION

A. The specimen is received fresh for frozen section and tissue procurement labeled "right lobe of liver" and consists of a 493 gram, $14.0 \times 11.0 \times 5.5$ cm. partial hepatectomy specimen described as "right lobe". The cauterized parenchymal margin measures $13.0 \times 6.2 \text{ cm}$. There is a large obvious gross tumor mass opposite to that margin. A double suture is present at one aspect and a frozen section of that area is requested. The parenchymal margin is inked black; a fleshy yellow to tan nodular irregular area consisting of tumor mass which measures $9.0 \times 12.0 \times 10^{-2}$ 6.0 cm. Abutting this mass are other irregular tumor nodules which measure a combined 3 cm. in greatest dimension. Separate from the largest mass is a 2 cm. nodule which is present directly at the suture which was requested for frozen section. A representative section of that margin with attached tissue is submitted for frozen section as frozen section AFS-1. Representative sections of tumor and normal are submitted for tissue procurement. Representative sections are submitted in 10 blocks as labeled.

BLOCK SUMMARY: 1-3 - Tumor to inked resection margin; 4-6 - tumor to capsular surface; 7-9 - tumor to normal parenchyma; 10 - random normal parenchyma.

Please note, photographs are taken.

B. Received fresh labeled "additional lobe of liver" is a 670 gram, $14.0 \times 4.0 \times 4.5$ cm. hepatectomy specimen with a double long suture oriented as superior and a single long stitch oriented as anterior which is hepatic capsular surface. The double long stitch margin is inked black and the inferior side is inked red for orientation. That inferior side represents the tissue adjacent to specimen A. The specimen is serially sectioned to reveal pale tannish areas adjacent to the prior resection which may represent residual tumor. The area adjacent to the single long stitch designated anterior is inked orange. The superior margin is sampled in frozen sections 1 and 2 and the area adjacent to the stitch defined as anterior margin which appeared more capsular is submitted

as representative frozen section AFS3. Representative sections after fixation. RS8. Representative sections are submitted for frozen section with blocks BFS1 and BFS2 representing the new superior margin and BFS3 representing the "single stitch anterior margin" which appears to be hepatic capsule. Representative sections are submitted in eight blocks as labeled.

BLOCK SUMMARY: 1-3 - Remainder of anterior margin (subsequently inked orange); 4-8 - representative from remainder of specimen documenting surfaces subsequently inked red (portion previously contiguous with part A) and black (apparent cauterized resection margin). RR1-5 additional sections contiguous with part A.

 $A\&B. \;\;$ Microscopic examination of the right lobe of liver partial hepatectomy:

 $\mbox{\sc Histologic}$ type: Hepatocellular carcinoma with solid, trabecular and clear cell patterns.

Histologic grade: Grade 3 of 4.

Tumor size: The main tumor mass is 12 cm. in greatest dimension and abutting additional irregular tumor nodules measuring a combined 3 cm.

Primary tumor (pT): Multiple nodules with size greater than 12 cm. (pT3a)

Margins of resection: Tumor was present at the original superior resection margin of part A. The final resection margins of part B are negative.

Vascular invasion: Lymphatic space invasion is identified in block A7 and A5. No large vessel invasion is identified.

Regional lymph nodes (pN): Not evaluated, pNx.

Distant metastasis (pM): Not evaluated, pMx.

Other findings: Special stains and immunohistochemical stains were evaluated on block A1. The tumor showed the expected loss of reticulin staining that one sees in hepatocellular carcinoma. The tumor showed the usual canalicular spotty staining with CEA. The

tumor showed the usual canalicular spotty staining with CEA. The tumor cells were completely negative for CK7, CK20 and CK8. The tumor cells were also negative for HepPar 1.

Although HepPar 1 is usually positive in hepatocellular carcinoma, higher grade tumors can be negative and that is the finding in this case.

The background hepatic parenchyma shows findings of steatohepatitis with approximately 30-40% mixed micro- and macrosteatosis with chronic inflammation in the portal areas and mild chronic inflammation within the hepatic lobules. Overall, the findings are those of moderate steatohepatitis. Stage I fibrosis is noted in the background hepatic parenchyma. No iron accumulation is identified. No PAS positive diastase resistant alpha-1 antitripsin globules are identified. Iron, PAS, PAS with diastase, reticulin and trichrome stains were evaluated on a representative normal tissue block (A10).

Dr. also reviewed selected slides and concurred with the diagnosis of hepatocellular carcinoma and grade 3 interpretation. Of note, no definitive additional tumor was identified in specimen B. Cautery artifact was noted in the areas which were considered grossly suspicious for some residual tumor, but no definitive residual tumor was identified microscopicly, even though some additional sections were evaluated.

4x2, 14x2, 15x3, 18x5, 20x5

[A few of the antibodies used in our laboratory may be classified as analyte specific reagents. These antibodies are monitored and controlled in our laboratory and their performance for in vitro diagnosis is well described in the medical literature. They have not been cleared or approved by the FDA.]

DIAGNOSIS

A., B. Liver, right lobe and additional right lobe margin:

HEPATOCELLULAR CARCINOMA, GRADE 3 OF 4.

Tumor size 12 cm. in greatest dimension with adjacent satellite nodules combining to 3 cm. in size (pT3a).

Lymphatic space invasion identified.

The final resection margins are negative for tumor.

Background steatohepatitis.

See microscopic description.

(Electronic Signature)

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Criteria	1	1
Diagnosis Discrepancy	Yes	No
Primary Fumor Site Discrepancy	 -	
HIPAA Discrepancy		
Prior Malignancy History		
Dual/Synchronous Rrivary Noted	 -	
		
Reviewer Initials Date Reviewed:	ATTIED	
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