"Admission Date: [\*\*2109-12-16\*\*] Discharge Date: [\*\*2109-12-28\*\*]

Date of Birth: [\*\*2057-3-3\*\*] Sex: M

Service: TRANSPLANT SURGERY

HISTORY OF PRESENT ILLNESS: Patient is a 52-year-old male with liver cirrhosis secondary to hepatitis C and alcohol abuse. He presented to [\*\*Hospital1 69\*\*] on [\*\*2109-12-16\*\*] for a living related liver transplant from his son, [\*\*Name (NI) 44475\*\*] [\*\*Name (NI) 44476\*\*]. The complications and risks of procedure were discussed in full with the patient prior to

#### PAST MEDICAL HISTORY:

- 1. Chronic hepatitis C cirrhosis.
- 2. Heavy alcohol use.
- 3. Herpes.

the surgery.

- 4. Status post tonsillectomy.
- 5. Status post thyroid cyst resection.
- 6. Status post appendectomy.

## MEDICATIONS ON ADMISSION:

- 1. Prevacid 30 mg p.o. b.i.d.
- 2. Famvir 25 mg p.o. b.i.d.
- 3. Aldactone 50 mg p.o. q.d.
- 4. Nadolol 20 mg p.o. q.d.
- 5. Glucosamine one tablet p.o. q.d.
- 6. Multivitamin.

- 7. Escitalopram 10 mg p.o. q.d.
- 8. Migraine medication prn.

ALLERGIES: He has no known drug allergies.

PHYSICAL EXAMINATION: Temperature 98.0, blood pressure 127/68, pulse 66, respiratory rate 16, and satting 97% on room air. The patient is generally icteric in no acute distress. There are numerous spider nevi present. Head, eyes, ears, nose, and throat: Normocephalic, atraumatic. External ocular movements intact. Neck is without lymphadenopathy or thyromegaly. There is no JVD. Chest was clear to auscultation. Heart sounds were regular, rate, and rhythm. His abdomen was soft, nontender. There is no hepatosplenomegaly appreciated. His extremities: Pulses were 2+ bilaterally, no bruits were appreciated. There is no clubbing, cyanosis, or edema noted.

LABORATORIES ON ADMISSION: WBC was 5.3, hematocrit 42.0, platelets 75. INR was 1.7. PT was 16.2. Sodium was 138, potassium 4.3, chloride 103, bicarb 30, BUN 6, creatinine 0.7, glucose 91. His AST is 91, ALT 58, alkaline phosphatase 127, total bilirubin is 3.6. Albumin was 3.0.

BRIEF SUMMARY OF HOSPITAL COURSE: Patient is a 52-year-old gentleman with liver cirrhosis secondary to chronic hepatitis

C and long history of alcohol use, who presented to [\*\*Hospital1 1444\*\*] on [\*\*2109-12-16\*\*] for living related liver transplant from his son.

The patient was preoped in the usual standard fashion.

Procedure went without any complications. The estimated blood loss from the procedure was around 2200 cc. The patient did receive a variety of intraoperative fluids including blood products.

The patient was taken to the ICU for close monitoring postoperatively. A postoperative day one Duplex ultrasound of the liver revealed a patent artery and vein. He again received variable blood products including red blood cells for a hematocrit as low as 27.4 and six packs of platelets x3 for a platelet count of 85 as well as a FFP for an elevated INR.

In the ICU, the patient was diuresed and weaned to extubation. He was on a variety of antihypertensives. He received a short course of perioperative Unasyn. In addition, there was a short period of time where he was on an insulin drip as well as a hydrogen chloride drip for a bicarb of 36. These were eventually stopped. Patient was extubated on postoperative day four.

Another Duplex ultrasound was repeated, which was normal.

Arterial and venous wave forms were normal. There was no biliary ductal dilatation. The liver function tests continued to trend downward.

On postoperative day five, the patient was transferred to the floor. Around that period, the patient had a very brief

episode of some mild confusion. This eventually resolved.

For immunosuppressant medication, the patient received during

the hospital course a total of two doses of Simulect. He was

started on cyclosporin on postoperative day one. He

additionally was on a short Solu-Medrol taper and eventually

was placed on p.o. prednisone.

His diet was slowly advanced, which he has tolerated. A

postoperative T tube study was done on postoperative day 10,

which showed a size discrepancy, a question of a stenosis at

the common bile duct at the biliary anastomosis. It was

thought to continue with the T tube open to gravity. JP had

been discontinued at this point. A future ERCP will

eventually be discussed with the patient in clinic. It was

thought that the patient was stable for discharge on

postoperative day 12 with follow-up appointments with Dr.

[\*\*Last Name (STitle) \*\*] at the [\*\*Hospital 1326\*\*] Clinic.

CONDITION ON DISCHARGE: Home with VNA services.

DISCHARGE STATUS: Stable.

DISCHARGE MEDICATIONS:

1. Cyclosporin 350 mg p.o. b.i.d.

2. CellCept 1 gram p.o. b.i.d.

3. Prednisone 20 mg p.o. q.d.

4. Valcyte 450 mg p.o. b.i.d.

5. Fluconazole 400 mg p.o. q.d.

- 6. Bactrim DS one tablet p.o. q.d.
- 7. Alprazolam 0.5 mg p.o. q.h.s.
- 8. Citalopram 20 mg p.o. q.d.
- 9. Clonidine 0.3 mg p.o. b.i.d.
- 10. Hydralazine 25 mg p.o. t.i.d.
- 11. Insulin-sliding scale.
- 12. Pantoprazole 40 mg p.o. q.d.
- 13. Colace 100 mg p.o. b.i.d.
- 14. Silvadene 1% cream applied t.i.d. to the arm and abdomen where the patient experienced some tape burns.
- 15. Percocet 1-2 tablets p.o. q.4-6h. prn pain.

DISCHARGE INSTRUCTIONS: Patient additionally is to have triweekly laboratories which include CBC, Chem-10, coags including PT, PTT, and INR, liver function tests, amylase, lipase, albumin. He is additionally to have cyclosporin levels drawn before the a.m. cyclosporin dose. Patient is to have VNA services for laboratories, nursing, for wound care, for T tube management and teaching, and to assist with medications and compliance as well as insulin administration and blood sugar checking.

FOLLOW-UP PLANS: Patient is to followup with Dr. [\*\*First Name4 (NamePattern1) \*\*]

[\*\*Last Name (NamePattern1) \*\*] at the Transplant Center, telephone number [\*\*Telephone/Fax (1) 673\*\*]

on [\*\*1-4\*\*] at 2 p.m. He additionally, is to followup

with Dr. [\*\*First Name8 (NamePattern2) \*\*] [\*\*Last Name (NamePattern1) \*\*] on [\*\*2110-1-6\*\*] at 12:40 p.m.

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SERVICES: He is to be discharged with VNA services as described.
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[**First Name11 (Name Pattern1) **] [**Last Name (NamePattern4) 707**],
M.D.,PH.D.[**MD Number(3) 12276**]

Dictated By:[**Last Name (NamePattern1) 28937**]

MEDQUIST36
```

D: [\*\*2109-12-27\*\*] 20:57

T: [\*\*2109-12-31\*\*] 08:48

JOB#: [\*\*Job Number 44477\*\*]

..

"Poor quality tracing. Sinus rhythm. Since the previous tracing of [\*\*2110-2-1\*\*] the rate has decreased. ST-T wave abnormalities are probably less, but suggest a repeat tracing of improved quality.

11

"Sinus tachycardia. Non-specific inferior/right precordial T wave abnormalities.

Clinical correlation is suggested. Since the previous tracing of [\*\*2109-12-11\*\*] sinus tachycardia is present and right precordial T wave changes are slightly more prominent.

"

"Normal sinus rhythm. Non-diagnostic repolarization abnormalities. Compared to the previous tracing of [\*\*2108-10-22\*\*] no definite change.

"

"Irregular sinus tachycardia

Possible anterior infarct - age undetermined

Low QRS voltages in precordial leads

Diffuse ST-T wave abnormalities

Since previous tracing of [\*\*2110-3-26\*\*], rate increased and voltage decreased

11

"Sinus tachycardia. Peaked P waves with new atrial pacemaker as compared to the previous tracing of [\*\*2110-3-10\*\*]. There is ST-T wave flattening in lead II and T wave inversions in leads III and aVF which is new. Rule out active inferior ischemic process. Clinical correlation is suggested.

"

"Sinus rhythm

Normal ECG

Since previous tracing of [\*\*2110-2-17\*\*], no significant change

"

"[\*\*2109-12-17\*\*] 10:36 AM

DUPLEX DOPP ABD/PEL PORT; US ABD LIMIT, SINGLE ORGAN PORT Clip # [\*\*Clip Number (Radiology) 68894\*\*]

Reason: Duplex of the liverplease evaluate hepatic artery, portal ve

Admitting Diagnosis: HEPATITIS; CIRRHOSIS /SDA

\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p living related liver transplant

REASON FOR THIS EXAMINATION:

Duplex of the liverplease evaluate hepatic artery, portal vein flowpost-op

day-1

**FINAL REPORT** 

INDICATION: S/P living, related liver transplant.

LIVER DOPPLER ULTRASOUND: 2d, color flow and doppler exam of the liver was performed.

The liver shows no focal or textural abnormalities. The main portal vein and its branches are patent and demonstrate normal hepatopetal flow. The main hepatic vein and its branches demonstrate normal triphasic flow. The main hepatic artery also appears normal with an RI of .65.

IMPRESSION: Normal appearance of post-operative liver transplant. Hepatic artery and vein are patent and unremarkable. Portal vein is patent with normal hepatopetal flow.

"[\*\*2109-12-18\*\*] 2:46 PM

CHEST (PORTABLE AP)

Clip # [\*\*Clip Number (Radiology) 69058\*\*]

Reason: please eval for line position

Admitting Diagnosis: HEPATITIS; CIRRHOSIS /SDA

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant s/p line change (L subclavian)

**REASON FOR THIS EXAMINATION:** 

please eval for line position

\_\_\_\_\_

#### FINAL REPORT

CHEST, SINGLE AP FILM

HISTORY: Liver transplant and line change.

Status post removal of swan ganz catheter. Introducer sheath is in right brachiocephalic vein. Left subclavian central venous line in distal SVC. No pneumothorax. Endotracheal tube is 7 cm above the carina. NG tube extends below diaphragm. Surgical drain right upper quadrant. No pneumothorax.

"[\*\*2109-12-4\*\*] 12:47 PM

ABDOMEN U.S. (COMPLETE STUDY); DUPLEX DOPP ABD/PEL Clip # [\*\*Clip Number (Radiology) 68892\*\*]

Reason: CIRRHOSIS LIVER TRANSPLANT LIST

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with cirrhosis.

**REASON FOR THIS EXAMINATION:** 

pt with cirrhosis. please us liver and check for focal lesions and portal vein patency.

\_\_\_\_\_\_

# FINAL REPORT

INDICATION: Cirrhosis, evaluate for focal hepatic lesions and portal vein patency.

COMPARISON: [\*\*2109-7-3\*\*].

FINDINGS: The liver again is shrunken in size, with a nodular contour and a heterogeneous echotexture. No focal hepatic masses are identified. There is no intra or extrahepatic biliary duct dilatation. The hepatic veins are patent and demonstrate appropriate direction of blood flow. The main portal vein is patent and demonstrates hepatopetal flow. The right and left hepatic arteries are patent and demonstrate normal waveform and direction of flow. The IVC is widely patent. There is a moderate amount of ascites present. No varices are identified. The gallbladder is normal in appearance without evidence of gallstones. The common bile duct measures 3 mm. The right kidney measures 10.4 cm, and the left kidney measures 11.3 cm. There is no evidence of hydronephrosis, renal stones, renal calculi. The spleen is enlarged and

#### IMPRESSION:

1) Cirrhotic liver with patent portal vein, hepatic arteries, and hepatic veins.

measures 18.8 cm in diameter. The pancreas is not visualized.

- 2) Moderate ascites.
- 3) Splenomegaly.

"[\*\*2109-12-16\*\*] 7:40 PM

CHEST (PORTABLE AP) Clip # [\*\*Clip Number (Radiology) 68893\*\*]

Reason: r ij swan, rt ij central line, l sc cenral line

Admitting Diagnosis: HEPATITIS; CIRRHOSIS /SDA

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[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant

**REASON FOR THIS EXAMINATION:** 

#### FINAL REPORT

HISTORY: Liver transplant. Right IJ Swan. Left subclavian central line. Right IJ central line.

There is a left subclavian central venous catheter terminating with its tip at the junction of the SVC and right atrium. There is a right internal jugular Swan-Ganz catheter with its tip in the main pulmonary artery segment. There is a large bore right internal jugular central venous catheter with its tip likely in the brachiocephalic vein on the right. There is an endotracheal tube in good position. The NG tube is positioned with its sideport above the GE junction. There are surgical drains projecting over the right upper quadrant. There is minimal atelectasis at the right base. Lung volumes are low, but the lungs are otherwise grossly clear. There is no effusion or pneumothorax.

IMPRESSION: NG tube with sideport above the GE junction should be advanced. Otherwise satisfactory lines and tubes.

"[\*\*2110-1-19\*\*] 2:07 PM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69063\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 100CC NON IONIC CONTRAST

Reason: HICCUPS, S/P PTC PLACEMENT, ? SUBDIAPHRAGMATIC COLLECTION

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: VISAPAQUE Amt: 100

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p PTC drain placement with hiccups

**REASON FOR THIS EXAMINATION:** 

Assess for subdiaphragmatic collection

No contraindications for IV contrast

# **FINAL REPORT**

HISTORY: Status post PTC, now with hiccups and pain. Assess for biloma.

COMPARISON: [\*\*2109-2-8\*\*].

TECHNIQUE: Contrast-enhanced CT of the abdomen and pelvis.

CONTRAST: 100 cc of Visipaque.

CT OF THE ABDOMEN WITH IV CONTRAST: There is a large subcapsular collection of low-attenuation fluid about the right hepatic lobe posteriorly and inferiorly which, given the history of recent percutaneous tube placement, likely represents a biloma. The attenuation values within this collection are consistent with simple fluid. There is a internal/external percutaneous biliary stent with its pigtail in the duodenum. There is a T-tube seen traversing this collection and it exiting through the lower abdomen. This large collection is having mass effect both on the sucapsular liver and on the adjacent kidney and duodenum. The spleen remains enlarged. There are numerous splenorenal collaterals. There are several prominent lymph nodes in the gastrohepatic ligament. There are also prominent lumbar collateral vessels. The IVC also experiences mass effect from this process but is patent. The colon is full of stool but the bowel is unremarkable.

CT OF THE PELVIS WITH IV CONTRAST: There is no ascites or free air. The distal ureters and urinary bladder are within normal limits. There is a surgical clip adjacent to the ascending colon. The bones are unrevealing.

IMPRESSION: Large subscapular fluid collection, likely a biloma. A T-tube traverses this collection.

"[\*\*2110-1-14\*\*] 3:51 AM

LIVER OR GALLBLADDER US (SINGLE ORGAN)

Clip # [\*\*Cl

Clip # [\*\*Clip Number (Radiology) 69060\*\*]

Reason: eval liver perfusion and billiary system

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant with exisitind t tube with decreased output.

**REASON FOR THIS EXAMINATION:** 

eval liver perfusion and billiary system

\_\_\_\_\_

FINAL REPORT

LIVER DOPPLER ULTRASOUND

INDICATION: Post liver transplant with decreased T-tube output and increased LFTs.

[\*\*Doctor Last Name \*\*] scale, color Doppler, and pulsed Doppler images were obtained of the transplant liver.

The main, right anterior, and right posterior portal veins are patent with appropriate hepatopetal flow. The right hepatic vein is patent with appropriate direction of flow and respiratory variation. The hepatic artery was imaged within the liver. There is a normal arterial waveform with rapid systolic upstroke and anterograde diastolic flow.

There is mild intrahepatic biliary dilatation. An anechoic fluid collection is seen along the medial surface of the transplant liver. The patient's biliary drain is seen to pass through this collection.

IMPRESSION: Patent liver vasculature. New fluid collection along medial portion of the liver probably represents a biloma given the patient's clinical history. Hematoma and abcess are also in the differential diagnosis. Additionally, there is minimal intrahepatic biliary dilatation.

"[\*\*2110-1-15\*\*] 10:13 AM

PTC Clip # [\*\*Clip Number (Radiology) 69062\*\*]

Reason: drainage

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: OPTIRAY Amt: 85

- \* [\*\*Numeric Identifier 3577\*\*] INTRO PERC TRNASHEPATIC STENT [\*\*Numeric Identifier 8283\*\*] BILIARY STRICTURE DILATION NO \*
- \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C \*
- \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 3579\*\*] CATH/STENT FOR INT/EXT BILIARY \*
- \* [\*\*Numeric Identifier 8285\*\*] BILIARY STRICTURE DILATION NO -59 DISTINCT PROCEDURAL SERVICE

* [**Numeric Identifier 3573**] TUBE CHOLANGIOGRAM *		CATH, TRANSLUM ANGIO NONLASER
* CATHETER, DRAINAGE	C1769 GUID WIRES INCL INF	*
* C1894 INT.SHTH NOT/GUID,EP,NONLASER		*
********************		
[**Hospital 4**] MEDICAL CONDI	TION:	
52 year old man with liver transplant POD30. Tube cholangiogram showed		
strictures.		
REASON FOR THIS EXAMINATION:		

#### FINAL REPORT

drainage

HISTORY: 52-year-old gentleman postop day 30 from liver transplant. T-tube cholangiogram demonstrated strictures in the common bile duct.

PROCEDURE AND FINDINGS: The procedure was performed by Drs. [\*\*Last Name (STitle) 1812\*\*] and [\*\*Name5 (PTitle) 27\*\*]

with Dr. [\*\*Last Name (STitle) 27\*\*] being present and supervising for the entire procedure. After general anesthesia was induced the patient's abdomen was prepped and draped in standard sterile fashion. Contrast was administered through the T-tube to opacify the biliary system. A right posterior peripheral bile duct was identified. After infusion of 1% lidocaine a 22 gauge needle was utilized to access this bile duct without difficulty. An .018 glidewire was advanced through the needle into the duct. The puncture needle was exchanged for a 4 Fr catheter. The catheter was positioned in the proximal common bile duct and cholangiogram was performed demonstrating a high-grade stricture at the ampulla. The catheter was upsized to a 6 Fr sheath. Using an .035 glidewire

and C2 Cobra catheter the ampullary stricture was able to be bypassed and the wire and catheter were advanced into the small bowel. The wire was then exchanged for [\*\*Initials (NamePattern4) \*\*] [\*\*Last Name (NamePattern4) 2244\*\*] wire. The Cobra catheter was removed and exchanged for

an 8 mm balloon. Th ampullary stricture was balloon-dilated with the 8 mm balloon. Cholangiogram through the sheath following balloon dilatation revealed a good angiographic result with passage of contrast into the duodenum. The balloon and sheath were removed over the wire and an 8.5 Fr biliary catheter was attempted to be advanced over the wire. Catheter was unable to be advanced through the mid common bile duct around the area of T-tube due to possible stricture. A 4 mm balloon was advanced over the wire into the common bile duct and the duct was dilated with the 4 mm balloon both inferior and superior to the T-tube. The Cobra catheter was then reinserted over the wire and the wire was exchanged for an Amplatz wire. The 8.5 Fr biliary catheter was then successfully advanced over the Amplatz wire. The pigtail was formed in the duodenum. Followup cholangiogram demonstrated good positioning of the tube with side holes in the right hepatic and common bile (Over)

[\*\*2110-1-15\*\*] 10:13 AM

PTC Clip # [\*\*Clip Number (Radiology) 69062\*\*]

Reason: drainage

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: OPTIRAY Amt: 85

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# **FINAL REPORT**

(Cont)

ducts and the pigtail in the duodenum. The tube was secured with an 0 silk suture and FlexiTrack and attached to bag drainage. The T-tube was reattached

to bag drainage. A Marcaine block was then administered above and below the rib level of the tube. Patient was then extubated and transferred to the recovery room in stable condition. There were no immediate postprocedure complications.

## **IMPRESSION:**

- 1. Common bile duct and ampullary strictures.
- 2. Balloon dilation of ampullary stricture with 8 mm balloon and dilation of common bile duct stricture with 4 mm balloon with good angiographic results.
- 3. Successful placement of 8.5 Fr percutaneous transhepatic biliary internalexternal drain.

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant with elevated lfts & decrease T Tube output

**REASON FOR THIS EXAMINATION:** 

TO BE DONE WITH LIVER BIOPSYTO BE DONE BY GRAVITY ONLY - page dr [\*\*Last Name (STitle) \*\*] [\*\*Numeric Identifier 3920\*\*]

with any questions evaluate for placement, obstruction

**FINAL REPORT** 

INDICATION: 52-year-old man with liver transplant elevated LFTs and decreasing T-tube output.

RADIOLOGISTS PREFORMING THE PROCEDURE: Dr. [\*\*First Name8 (NamePattern2) \*\*] [\*\*Last Name (NamePattern1) 994\*\*] and Dr. [\*\*First Name8 (NamePattern2) 2091\*\*] [\*\*Last Name (NamePattern1) 27\*\*]

the staff radiologist present throughout the entire procedure.

PROCEDURE/TECHNIQUE: Patient was placed supine on the angiography table. The single Silastic tube was hooked up to a gravity infusion of Conray contrast.

The cholangiogram demonstrated prompt filling of the common bile duct and the intrahepatic biliary radicles. There was prompt extravasation from a segment VIII biliary radicle. The common bile duct appeared to be narrowed at the midportion. Very little contrast flowed into the duodenum from the common bile duct. Dr. [\*\*Last Name (STitle) \*\*] was informed of these findings at the time of procedure.

COMPLICATIONS: None.

CONTRAST/MEDICATIONS: 20 cc of Conray contrast.

IMPRESSION: Bile leak from a segment VIII biliary radicle. Mid common bile duct stricture with very little contrast seen flowing into the duodenum.

"

"[\*\*2109-12-26\*\*] 8:25 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 68896\*\*]

Reason: BY GRAVITY ONLY - NO INJECTIONPLEASE PAGE DR. [\*\*Last Name (STitle) \*\*] [\*\*Numeric

Identifier 3920\*\*]

Admitting Diagnosis: HEPATITIS; CIRRHOSIS /SDA

Contrast: CONRAY Amt: 50

\* [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C [\*\*Numeric Identifier 3573\*\*]

TUBE CHOLANGIOGRAM

\*

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant POD 10

**REASON FOR THIS EXAMINATION:** 

BY GRAVITY ONLY - NO INJECTIONPLEASE PAGE DR. [\*\*Last Name (STitle) \*\*] [\*\*Numeric Identifier 3920\*\*] BEFORE PERFORMING

STUDY FOR CLARIFICATION

## **FINAL REPORT**

INDICATION: A 52-year-old male status post liver transplant postoperative day

number 10. Assess for biliary leak or obstruction.

RADIOLOGISTS: Drs. [\*\*Last Name (STitle) 2300\*\*] and [\*\*Name5 (PTitle) 63\*\*], the Attending Radiologist, who

was present and supervising the entire procedure.

T-TUBE CHOLANGIOGRAM: After a scout image was obtained of the right upper

abdomen, Conray was administered via the T-tube by gravity. There was antegrade and retrograde filling of the intra- and extra-hepatic bile ducts without evidence of leakage. There was prompt emptying of contrast from the common bile duct into the duodenum. The bile ducts were non-dilated.

"[\*\*2110-1-8\*\*] 8:43 AM

US ABD LIMIT, SINGLE ORGAN; DUPLEX DOP ABD/PEL LIMITED Clip # [\*\*Clip Number (Radiology) 69059\*\*]

Reason: DUPLEX U/Sassess blood flow, arterial & venous, RIscollectio

Admitting Diagnosis: LIVER TRANSPLANT; R/O REJECTION

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man pod # 3 s/p living related liver transplant now with inc bili, alk phos and enzymes.

**REASON FOR THIS EXAMINATION:** 

DUPLEX U/Sassess blood flow, arterial & venous, Riscollections

FINAL REPORT

INDICATION: Duplex ultrasound to assess blood flow, arterial and venous flows.

COMPARISONS: Prior ultrasound [\*\*2110-1-7\*\*].

HEPATIC ARTERY DOPPLER

Examination is being performed as completion of last night's study where hepatic arterial flow was not seen.

The intrahepatic right as well as the main hepatic arteries demonstrate patent flow showing mild parvus tarvus wave forms. The resistive indices measures at 0.62.

IMPRESSION: There is patent flow of right and main hepatic arteries showing mild parvus tarvus wave forms. The resistive indices are normal. Short term follow up is recommended to assess for interval changes in the visualized wave forms at the hepatic arteries.

"[\*\*2109-12-19\*\*] 9:47 AM

LIVER OR GALLBLADDER US (SINGLE ORGAN) PORT; DUPLEX DOPP ABD/PELClip # [\*\*Telephone/Fax (1) 68895\*\*]

Reason: r/o biloma/ hepatic artery stenosis/ thrombosis, portal vein

Admitting Diagnosis: HEPATITIS; CIRRHOSIS /SDA

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man pod # 3 s/p living related liver transplant now with inc bili.

REASON FOR THIS EXAMINATION:

r/o biloma/ hepatic artery stenosis/ thrombosis, portal vein/hepatic veins

FINAL REPORT

HISTORY: Status post living related liver transplant post day #3. Increased bilirubin.

FINDINGS: The transplanted liver is normal in size and contour. There is an

ill-defined hypoechoic region in the right lobe of the liver of uncertain significance. There is no intrahepatic or extrahepatic biliary ductal dilatation. The main portal vein is patent with normal hepatopetal flow. The hepatic arteries, hepatic veins, and portal veins demonstrate normal wave forms and flow. The resistive indices for the hepatic arteries range from .66 to .6. There is no evidence for free fluid. A sliver of echogenic fluid is seen medial to the liver and may be a small resolving hematoma after surgery.

IMPRESSION: Normal intrahepatic arterial and venous waveforms.

"

"[\*\*2109-12-11\*\*] 1:20 PM

CHEST (PRE-OP PA & LAT) Clip # [\*\*Clip Number (Radiology) 69015\*\*]

Reason: dx: hcp cirrhosis, proc: living donor, living transport, liv

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with

**REASON FOR THIS EXAMINATION:** 

dx: hcp cirrhosis

proc: living donor, living transport

liver recipient wait.

## **FINAL REPORT**

INDICATION: Preop chest radiograph in patient with liver cirrhosis, preliver transplant.

CHEST, PA/LATERAL VIEWS: Comparison is made to exam of [\*\*2108-10-22\*\*]. The heart size is stable. The mediastinal and hilar contours are within normal limits. The pulmonary vasculature is unremarkable. There is new platelike

atelectasis of the right lung base and probable discoid atelectasis of the left lung base. There are no focal infiltrates or pleural effusions. The visualized soft tissues and osseous structures are unremarkable.

IMPRESSION: Bibasilar atelectasis. No evidence of an acute cardiopulmonary process.

"[\*\*2110-2-3\*\*] 10:24 PM

CT ABDOMEN W/O CONTRAST; CT PELVIS W/O CONTRAST 69111\*\*]

Clip # [\*\*Clip Number (Radiology)

Reason: Please evaluate for perihepatic collection. NO IV CONTRAST

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Field of view: 40

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant s/p hepatojejunostomy with bile in JP

drains

**REASON FOR THIS EXAMINATION:** 

Please evaluate for perihepatic collection. NO IV CONTRAST

CONTRAINDICATIONS for IV CONTRAST:

CRT 2.1

## **FINAL REPORT**

INDICATIONS: A 52-year-old male status post liver transplant and hepaticojejunostomy with L in the JP drain. Evaluate for perihepatic collection.

TECHNIQUE: Axial noncontrast CT imaging of the abdomen and pelvis. No contrast was administered secondary to the patient's renal dysfunction.

Comparison is made to a prior study from [\*\*2110-1-28\*\*].

ct of the Abdomen Without contrast: There are small bilateral pleural effusions which are new when compared to the prior examination. There is a percutaneous biliary drain in place which terminates within the duodenum. Two

[\*\*Location (un) 1732\*\*]-[\*\*Location (un) 1733\*\*] drains are in place in the subhepatic region. A small amount of perihepatic fluid is present. Adjacent to the subhepatic [\*\*Location (un) 1732\*\*]-[\*\*Location (un) 1733\*\*] drain,

there is a complex collection with air. This finding could represent surgical packing material or abscess. Correlation with the patient's surgical history is recommended. The pancreas, adrenal glands and kidneys are unremarkable on this study limited by the lack of IV contrast. Innumerable large perisplenic varices are present. The spleen is enlarged. There is a small amount of perisplenic fluid as well as fluid tracking along both pericolic gutters as well as the pelvis. There is diffuse bowel wall thickening likely reflecting the patient's liver dysfunction.

CT OF THE PELVIS WITHOUT CONTRAST: The urinary bladder, rectum, and prostate are unremarkable on this study limited by the lack of IV contrast. There is a tiny focus of free air within the abdomen likely reflecting the patient's numerous recent interventions.

Bone windows show no suspicious lytic or sclerotic lesions.

IMPRESSION:

- 1. New small bilateral pleaural effusions.
- 2. Minimal non specific diffuse bowel wall thickening with a minimal amount of ascites.
- 3. Stable appearance of perihepatic fluid collections when compared to the prior exam.

(Over)

[\*\*2110-2-3\*\*] 10:24 PM

CT ABDOMEN W/O CONTRAST; CT PELVIS W/O CONTRAST 69111\*\*]

Clip # [\*\*Clip Number (Radiology)

Reason: Please evaluate for perihepatic collection. NO IV CONTRAST

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Field of view: 40

**FINAL REPORT** 

(Cont)

4. Subhepatic fluid collection with air in the region of the patient's JP drain. This finding could reflect surgical packing after the patient's recent hepaticojejunostomy. However, coorelation with the patient's operative history would be hepful in excluding subhepatic abscess.

"[\*\*2110-1-24\*\*] 7:38 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69105\*\*]

Reason: Please evaluate PTC and t-tube.

## **FINAL REPORT**

HISTORY: The patient had a living related liver transplant with placement of an external-internal biliary drain, placement of a small catheter within a left-sided biliary system, and placement of a ""biloma"" tube at the right lower surface of the liver.

PROCEDURE: The procedure was performed by Drs. [\*\*First Name (STitle) 324\*\*] and [\*\*Name5 (PTitle) 135\*\*] with Dr. [\*\*First Name (STitle) 135\*\*]

being present throughout and supervising. The small surgical tube in the leftsided biliary system was first infused under gravity and a film was obtained before administration of contrast followed by several sequential films. It demonstrated that it was filling a left-sided ductal system and oblong space which did not have any extravasation into the free peritoneum. This biliary space connected with the main bile duct as evidenced by contrast flowing into the hepatic duct and into the external-internal biliary tube with rapid quantitative transit of contrast through the tube into the small bowel. From this injection site there was no extravasation to the undersurface of the liver. Of note also is that during this injection there was only faint filling of the right-sided hepatic ducts indicating that there is no further pressure gradient preventing emptying of the biliary system into the small bowel. Of note also is that while the biliary external-internal tube becomes relatively radio- opaque compatible with filling of its intrahepatic segment and system extending into the small bowel the piece of tubing that at this point extended externally and was not capped but draining to a bag did not fill with contrast indicating good internal drainage. After a period of about 10 minutes the biliary system had drained there was still some residual contrast within the oblong left-sided superior space, but again fully contained.

Now the external-internal biliary tube was injected since a prior cholangiogram from [\*\*2110-1-20\*\*] demonstrated a leak into the right subhepatic space and toward the biloma drainage tube. During today's cholangiogram through the external/internal drainage catheter only a very faint tract of contrast into this space was observed. It was also noted that injection from this side filled also the left-sided oblong-shaped biliary structure.

IMPRESSION: Marked decrease in leakage from a site at the confluence of the intrahepatic ductal structure. Injection from the small surgical biliary tube (Over)

[\*\*2110-1-24\*\*] 7:38 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69105\*\*]

Reason: Please evaluate PTC and t-tube.

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: CONRAY Amt: 40

FINAL REPORT

(Cont)

which is indwelling in a left-sided biliary radical and adjacent structure shows no free leakage. There is rapid drainage from that space to the bile duct and through the external-internal tube into the small bowel.

Considering that filling of the external-internal stent through the external drainage component is still associated with some minor leakage may give rise to consider how the position of the external drainage bag might be modified. If it should be placed too low gastrointenstinal content could drain externally and possibly at a space. On the other hand decompression of the entire system is still desirable.

The findings were discussed with Dr. [\*\*Last Name (STitle) 69106\*\*].

"[\*\*2110-2-4\*\*] 7:47 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69112\*\*]

Reason: Transhepatic cath study

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: OPTIRAY Amt: 40

\* [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C 78 RELATED PROCEDURE DURING POSTOPER \*

\* [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM

\*

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant s/p hepaticojejunostomy

**REASON FOR THIS EXAMINATION:** 

Transhepatic cath study

\_\_\_\_\_

# FINAL REPORT

HISTORY: 52-year-old gentleman status post liver transplant with recent operative revision for common bile duct leak. He continues to put out bile through the JP drains.

PROCEDURE AND FINDINGS: The procedure was performed by Drs. [\*\*Last Name (STitle) 1812\*\*] and [\*\*Name5 (PTitle) 7\*\*],

who was present and supervising. Through the patient's surgical percutaneous biliary tube, a tube cholangiogram was performed under gravity. The bile ducts were decompressed. The biliary tube crossed through the anatomosis and there was filling seen in the jejunum. The anastomotic area and the common bile duct was somewhat irregular in appearance with filling defects. There was no leak observed at this location. At the medial surface there was a continued leak through the peripheral duct as has been previously seen. This fills into a small collection which has also been previously observed. The patient tolerated the procedure well and there are no postprocedure complications.

#### IMPRESSION:

1. Surgically placed transhepatic biliary tube is in place. Tube cholangiogram demonstrated decompressed bile ducts. Area of hepaticojejunostomy is irregular with some filling defects. There is no leak seen at the anastomosis. Contrast is passing into the bowel.

2. Continued leak from the peripheral medial biliary branch into a small contained collection.

11

"[\*\*2110-1-30\*\*] 4:39 PM

CHEST (PORTABLE AP)

Clip # [\*\*0-0-\*\*]

Reason: eval for central line placement and eval for pneumothorax pl

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant s/p line placement in operating room

**REASON FOR THIS EXAMINATION:** 

eval for central line placement and eval for pneumothorax please

**FINAL REPORT** 

INDICATION: Liver transplant, status post line placement in O.R..

Comparison is made to prior chest X-ray of [\*\*2109-12-18\*\*].

CHEST, SUPINE AP: There is a right sided internal jugular central venous catheter with its tip terminating in the distal SVC at the cavoatrial junction. The right hemidiaphragm is not fully seen. There is no evidence of pneumothorax. There is a also a nasogastric tube present with its tip terminating in the fundus of the stomach. The heart and mediastinal contours are unchanged in appearance. The lungs are clear.

IMPRESSION: Right sided internal jugular catheter with tip terminating near the cavoatrial junction with no pneumothorax.

"[\*\*2110-1-29\*\*] 2:27 PM

DUPLEX DOP ABD/PEL LIMITED

Clip # [\*\*Clip Number (Radiology) 69110\*\*]

Reason: hepatic arterial inflow to liver transplant

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant cbd bile leak

**REASON FOR THIS EXAMINATION:** 

hepatic arterial inflow to liver transplant

# FINAL REPORT

INDICATION: Status post liver transplant with no intrahepatic arterial flow seen on an angiogram of [\*\*2110-1-28\*\*]. Assess for change.

COMPARISONS: Hepatic artery angiogram of [\*\*2110-1-28\*\*].

LIMITED RIGHT UPPER QUADRANT ULTRASOUND WITH DOPPLER: Multiple views of the liver parenchyma fail to demonstrate any intrahepatic arterial blood flow. No normal hepatic arterial waveforms are demonstrated. The main portal vein is patent, with flow in the appropriate direction. The anterior and posterior branches of the right portal vein are patent.

## **IMPRESSION:**

1. No intrahepatic arterial waveforms identified, consistent with the findings on the conventional hepatic angiogram performed on [\*\*2110-1-28\*\*].

2. Patent main and right portal veins.

11

"[\*\*2110-2-6\*\*] 1:46 PM

BX-NEEDLE LIVER BY RADIOLOGIST; 79 UNRELATED PROCEDURE/SERVICE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 69113\*\*]

GUIDANCE/LOCALIZATION FOR NEEDLE BIOPSY US (S&I)

Reason: Liver biopsy to r/o rejection

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant with bile leak s/p hepatojejunostomy now with elevated LFTs

**REASON FOR THIS EXAMINATION:** 

Liver biopsy to r/o rejection

#### FINAL REPORT

INDICATION: Status post liver transplant, now with elevated liver function tests.

LIVER BIOPSY PROCEDURE: Informed signed consent was obtained from the patient for a liver biopsy. The right upper quadrant was then prepped and draped in standard sterile fashion. After an appropriate spot on the skin was marked using ultrasound localization, local anesthesia was achieved with 1% lidocaine. Using continuous son[\*\*Name (NI) 64\*\*] guidance, a #16 gauge biopsy gun was introduced into the right hepatic lobe and a single core biopsy was obtained.

The patient tolerated the procedure well without any immediate post procedure complications. The core biopsy was immediately sent to Pathology for further evaluation.

Dr. [\*\*First Name (STitle) 547\*\*], staff radiologist, was present and supervised the entire procedure.

IMPRESSION: Successful core liver biopsy.

"[\*\*2110-1-28\*\*] 11:47 AM

CT ABD W&W/O C; CT PELVIS W/CONTRAST

Clip # [\*\*Clip Number (Radiology) 69107\*\*]

CT 150CC NONIONIC CONTRAST

Reason: evaluate transplant liver. PLease do CTA. Evaluate the size

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: VISAPAQUE Amt: 100

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p PTC drain placement with hiccups

**REASON FOR THIS EXAMINATION:** 

evaluate transplant liver. PLease do CTA. Evaluate the size of biloma. Please

use visapeg.

No contraindications for IV contrast

FINAL REPORT

CT OF THE ABDOMEN AND PELVIS WITHOUT AND WITH CONTRAST.

INDICATION: 52 year old male with liver transplantation. Evaluate size of biloma.

TECHNIQUE: Axial CT imaging of the abdomen performed without contrast as well as with arterial and portal venous phase of contrast administration.

Additional delayed imaging of the abdomen and pelvis was performed after the intravenous administration of 100 cc of Visipaque. Visipaque was used due to patient's renal dysfunction.

CT OF THE ABDOMEN WITHOUT AND WITH CONTRAST: The visualized portions of the lung bases are clear. When compared to a prior study of [\*\*2110-1-19\*\*] there has been placement of a pigtail drainage catheter in the infrahepatic region with decreased size of a subhepatic fluid collection. A percutaneous catheter traversing the right abdomen and terminating within the duodenum is unchanged when compared to the prior examination. On the arterial phase of contrast enhancement, no definite intrahepatic arterial flow is identified. Arterial flow is identified within the proper hepatic artery just beyond the gastroduodenal artery. The proximal celiac axis and superior mesenteric arteries are well opacified. There is no definite evidence of intrahepatic biliary ductal dilatation. On the portal venous phase there are patchy areas of hypodensity within the posterior aspect of the transplant liver as well as the inferior aspect of the transplant liver. These areas of patchy hypoattenuation are not as prominent on the noncontrast scan and on the late phase of contrast administration. Large varices are identified in the region of the splenic hilum. On the arterial phase of contrast administration the spleen enhances to a greater degree than the liver. The pancreas, adrenal glands, kidneys, and visualized portions of large and small bowel are unremarkable.

CT OF THE PELVIS WITH CONTRAST: The urinary bladder, prostate gland, and rectum are within normal limits. Bone windows show no suspicious lytic or sclerotic lesions.

#### IMPRESSION:

No definite intrahepatic arterial flow identified. Arterial flow is
 (Over)

[\*\*2110-1-28\*\*] 11:47 AM

CT ABD W&W/O C; CT PELVIS W/CONTRAST

Clip # [\*\*Clip Number (Radiology) 69107\*\*]

CT 150CC NONIONIC CONTRAST

Reason: evaluate transplant liver. PLease do CTA. Evaluate the size

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: VISAPAQUE Amt: 100

# FINAL REPORT

# (Cont)

identified just beyond the gastroduodenal artery in the region of the proximal proper hepatic artery. In this region there is evidence of stenosis/compromise of arterial flow. Patchy areas of hypodensity along the inferior and posterior aspect of the transplant liver are present which are most evident on the portal venous phase of contrast enhancement. These areas could reflect focal ischemia if the the lack of arterial flow to the transplant liver is verified.

2. Interval placement of a pigtail catheter in the infrahepatic region with decrease size of a subhepatic fluid collection.

"[\*\*2110-1-28\*\*] 4:42 PM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69108\*\*]

Reason: TUBE CHECK

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: OPTIRAY Amt: 20

\* [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C 78 RELATED PROCEDURE DURING

POSTOPER \*

\* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM

## **FINAL REPORT**

INDICATION: Status post liver transplant.

RADIOLOGISTS: Dr. [\*\*Last Name (STitle) 7\*\*].

TECHNIQUE: Percutaneous transhepatic drainage catheter remains in place with the distal loop formed in the bowel. This tube was injected and demonstrated no evidence of dilatation of intrahepatic ducts. Contrast material flows freely into the bowel loop. There is leakage of contrast material into the contained collection at the medial aspect of the liver. It appears to leak from the common duct. Small amount of air was seen in this collection prior to injection of the contrast material. No free leakage of contrast material was seen into the subcapsular or subhepatic spaces.

The patient tolerated the procedure well. There were no immediate post procedure complications.

IMPRESSION: Persistent leak of contrast material into contained space. The leak likely extends from the common hepatic duct. The collection has the same size and appearance as on the prior examination.

"[\*\*2110-1-7\*\*] 9:28 PM

DUPLEX DOP ABD/PEL LIMITED

Clip # [\*\*Clip Number (Radiology) 68898\*\*]

Reason: please eval hepatic art, vein and portal system

Admitting Diagnosis: LIVER TRANSPLANT; R/O REJECTION

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man pod # 3 s/p living related liver transplant now with inc

bili, alk phos and enzymes.

**REASON FOR THIS EXAMINATION:** 

please eval hepatic art, vein and portal system

**FINAL REPORT** 

INDICATIONS: Status post liver transplant. Evaluate hepatic vasculature.

DOPPLER ULTRASOUND OF THE TRANSPLANTED LIVER: Comparison is made to the study from [\*\*2109-12-19\*\*]. The transplanted liver is normal in size and contour.

No focal areas of textural abnormality are seen. The main portal vein, right anterior and posterior branches are patent, with appropriate hepatopetal flow. Hepatic venous branches are all patent, with normal hepatofugal flow. The main hepatic artery is visualized, and is patent, with a resistive index of 0.69. The right anterior and posterior hepatic arteries were not able to be visualized. There is no intra- or extrahepatic biliary ductal dilatation. No fluid collections adjacent to the liver or in the porta hepatis are seen.

IMPRESSION: Visualized hepatic vasculature normal. Right anterior and posterior hepatic arterial branches not visualized.

"[\*\*2110-1-3\*\*] 10:38 AM

T-TUBE CHOLANGIO (POST-OP)

Clip # [\*\*Clip Number (Radiology) 68897\*\*]

Reason: evaluate for stricture

Admitting Diagnosis: S/P LIVER TX, ABD PAIN, HEADACHE

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant POD 17 with rise in LFT's

**REASON FOR THIS EXAMINATION:** 

evaluate for stricture

FINAL REPORT

INDICATION: Postop day 17 from a liver transplant with elevation in LFTs.

FINDINGS: Initial scout view demonstrates presence of a T-tube, right-sided surgical clip, and skin staples in a chevron configuration. Under fluoroscopic guidance, a slow-drip infusion of Conray was begun, and this resulted in

opacification of a nondilated biliary tree. There was no evidence of stricture. Contrast flowed promptly into the common bile duct and then into the small bowel. Delayed imaging after gravity drainage of the contrast out of the biliary tree demonstrates a small residual amount within the common duct, but no contrast within the intrahepatic biliary tree.

IMPRESSION: No evidence of ductal dilatation or stricture.

"[\*\*2110-2-20\*\*] 7:34 AM

CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 69116\*\*]

Reason: Please inject PTC drain (not JP) to r/o obstruction

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 40

\* [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C 78 RELATED PROCEDURE DURING POSTOPER \*

\* [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM

\*

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant

**REASON FOR THIS EXAMINATION:** 

Please inject PTC drain (not JP) to r/o obstruction

\_\_\_\_\_

**FINAL REPORT** 

HISTORY: Liver transplant, liver related donor, with biliary leak.

TECHNIQUE/FINDINGS: As requested, this patient's biliary catheter was infused

with conray 30 under gravity pressure only. This demonstrated nondilated biliary radicles, antegrade flow but the persistence of extravasation of contrast along the edge of the transplant. Due to drip infusion, the exact origin of the leak could not be identified however the images were suspicious for both a small biliary radicle as well as an element from the left and right biliary confluence. Contrast was also noted within a JP drain at the level of the transplant hilum.

IMPRESSION: Persistent biliary leak as described above.

"[\*\*2110-2-19\*\*] 1:01 PM

N-G TUBE PLACEMENT (W/ FLUORO); 79 UNRELATED PROCEDURE/SERVICE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 69115\*\*]

Reason: please place feeding tube in post-pyloric position

Admitting Diagnosis: ELEVATED LFTS

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant with failure to thrive

**REASON FOR THIS EXAMINATION:** 

please place feeding tube in post-pyloric position

FINAL REPORT

HISTORY: 52 y/o man status post liver transplant.

POST PYLORIC TUBE PLACEMENT: The patient was placed on the fluoroscopic table and [\*\*Initials (NamePattern4) \*\*] [\*\*Last Name (NamePattern4) 1275\*\*] [\*\*Last Name (NamePattern1) \*\*] feeding tube was advanced through the esophagus and

into the stomach. The feeding tube was maneuver into the duodenum. 10 cc Conray contrast was injected through the feeding tube and the contrast medium was visualized within the duodenum. The patient tolerated the procedure without complication.

**IMPRESSION:** 

Successful placement of post pyloric feeding tube, without complication.

"[\*\*2110-2-24\*\*] 7:14 AM

CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 69145\*\*]

Reason: define leak noted on prior ptc

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 60

- \* [\*\*Numeric Identifier 404\*\*] EMBO NON NEURO 78 RELATED PROCEDURE DURING POSTOPER \*
- \* [\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE C 78 RELATED PROCEDURE DURING POSTOPER \*
- \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C \*
- \* 78 RELATED PROCEDURE DURING POSTOPER -51 MULTI-PROCEDURE SAME DAY \*
- \* [\*\*Numeric Identifier 407\*\*] TRANCATHETER EMBOLIZATION [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CON \*
- \* [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM CATHETER, DRAINAGE \*
- \* C1769 GUID WIRES INCL INF C1769 GUID WIRES INCL INF \*
- \* C1887 CATHETER GUIDING INF/PERF C1887 CATHETER GUIDING INF/PERF \*
- \* C1894 INT.SHTH NOT/GUID,EP,NONLASER

\*

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant POD30. Tube cholangiogram showed strictures.

**REASON FOR THIS EXAMINATION:** 

define leak noted on prior ptc

FINAL REPORT

INDICATION: Biliary leak.

RADIOLOGISTS: Dr. [\*\*Last Name (STitle) 4148\*\*] and Dr. [\*\*Last Name (STitle) 7\*\*], the attending radiologist who was

present and supervising the entire procedure.

Details of the procedure and possible complications were explained to the patient and informed consent was obtained.

Please make a note that the report of this study was dictated on the day of the examination, but was lost in transcription.

TECHNIQUE AND FINDINGS: The patient is s/p hepaticojejunostomy. Indwelling internal/external drainage catheter is in place, traversing the anastomosis. A guidewire was advanced through the catheter and the catheter removed. A 5 French sheath was then placed. Small amount of contrast material was injected and demonstrated extensive leak at the anastomosis. A second guidewire was placed through the sheath and the sheath was then removed. One wire was left for safety and the sheath was then introduced into the biliary tree over the second guidewire. A microcatheter was used to cannulate a small branch of the

common duct. With the help of a wire a microcatheter was advanced to the very periphery of this small duct in the medial and superior portion of the liver.

A small amount of contrast was injected through the microcatheter and demonstrated a second point of leak into the same collection, which was opacified from the leak at the hepaticojejunostomy anastomosis. Gelfoam slurry was injected into the peripheral aspect of this duct through the microcatheter. The microcatheter was then moved back and injection of contrast material demonstrated no evidence of a persistent leak. A microcatheter was then removed. The sheath was also then removed and biliary 12 French internal/external drainage placed over the wire traversing the (Over)

[\*\*2110-2-24\*\*] 7:14 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69145\*\*]

Reason: define leak noted on prior ptc

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 60

#### FINAL REPORT

(Cont)

hepaticojejunostomy anastomosis. The position of the catheter was then confirmed by injection of a small amount of contrast material. The catheter was secured to the skin.

The patient tolerated the procedure well. There were no immediate complications.

CONTRAST MATERIAL: 50 cc of contrast material were used.

IMPRESSION	IMP	RESS	ION
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- 1) Persistent leak at the hepaticojejunostomy anastomosis.
- 2) Leak from a small bile duct at the medial aspect of the liver, successfully embolized with Gelfoam slurry.
- 3) Replacement of an internal/external biliary drainage catheter traversing hepaticojejunostomy anastomosis.

"[\*\*2110-2-28\*\*] 7:46 AM

11

BILI CATH REM Clip # [\*\*Clip Number (Radiology) 69146\*\*]

Reason: please replace normal cath to one without side holes

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 20

- \* [\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE C 78 RELATED PROCEDURE DURING POSTOPER \*
- \* [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C 78 RELATED PROCEDURE DURING POSTOPER \*
- \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CON \*
- \* [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM CATHETER, DRAINAGE \*

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p LDLT now with anastomotic leak

**REASON FOR THIS EXAMINATION:** 

\_\_\_\_\_

#### **FINAL REPORT**

DATE OF PROCEDURE: History 52 year-old gentleman status post liver transplant with common bile duct leak. Has percutaneous 12-French drain but continues to leak out of side holes into the fluid collection.

PROCEDURE AND FINDINGS: The procedure was performed by Drs. [\*\*Last Name (STitle) 1812\*\*] and [\*\*Name5 (PTitle) 7\*\*]

who was present and supervising throughout. The patient's right abdomen was prepped and draped in standard sterile fashion. 1% Lidocaine was infused around the tube exit site. The existing 12-French biliary tube was examined under fluoroscopy and found to be in good position. Cholangiogram was performed which demonstrated a decompressed biliary tree with the stent leak at the common bile duct anastomosis. A 12-French nephrostomy tube was obtained. Three large side holes were cut at the distal [\*\*1-18\*\*] of the tube. The existing biliary tube was cut and [\*\*Initials (NamePattern4) \*\*] [\*\*Last Name (NamePattern4) 414\*\*] wire was advanced into the bowel.

The biliary tube was removed. The modified 12-French nephrostomy tube was advanced over the wire. The wire and innder stiffner were removed. The pigtail was formed and locked. The tube was positioned such that no side holes were present at the leak. Post placement tube nephrostogram confirmed good positioning of the tube with proxmal side holes in the biliary tree, distal side holes in the bowel. There was no extravasation of contrast at the leak. The catheter was secured with an O silk suture and a flexi-track. A mark was made with a permanent marker at the desired skin exit site of the tube to ensure that there re no side holes at the anastomotic leak. The tube was then attached to bag drainage. The patient tolerated the procedure well and there were no immediate post procedure complications.

IMPRESSION: 1) Tube cholangiogram demonstrating persistent leak at the common bile duct anastomosis.

- 2) Exhange of existing biliary catheter for modified 12-French nephrostomy tube to dicrease anastomotic leak.
- 3) Post procedure tube cholangiogram demonstrating appropriate positioning of the proximal side holes of the biliary tree and distal side holes in the bowel with no extravasation of contrast observed.

(Over)

[\*\*2110-2-28\*\*] 7:46 AM

BILI CATH REM Clip # [\*\*Clip Number (Radiology) 69146\*\*]

Reason: please replace normal cath to one without side holes

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 20

# **FINAL REPORT**

(Cont)

4) Mark made with permanent marker designating appropriate skin exit site of tube to ensure appropriate positioning of proximal and distal side holes to exclude drainage into the anastomotic leak.

"

CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 69149\*\*]

Reason: PTC tube study, pt with decreasing PTC drainageplease send f

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 25

- \* [\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE C 78 RELATED PROCEDURE DURING POSTOPER \*
- \* [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C 78 RELATED PROCEDURE DURING POSTOPER \*
- \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CON \*

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p LDLT now with anastomotic leak

## **REASON FOR THIS EXAMINATION:**

PTC tube study, pt with decreasing PTC drainageplease send fluid aspirated for culture, cytology

\_\_\_\_\_

# FINAL REPORT

INDICATION: Known bile leak at hepaticojejunal anastomosis. The patient has had decreased output through the internal and external biliary drain and increased output through the patient's surgically placed J-drain.

CONSENT: The risks and benefits of the proposed procedure were explained to the patient. Written informed consent was obtained and placed on the patient's chart.

SEDATION: Conscious sedation was provided by the radiology nurses. Continuous heart rate, blood pressure, pulse oximetry monitoring was performed. Fentanyl and Versed were administered in divided doses.

PROCEDURE: The patient was brought to the angiography suite and placed supine on the table. His internal and external biliary drain was aspirated and only 1.5 cc of bile could be obtained. Tube cholangiogram with 4 cc of Optiray contrast showed contrast passage through the proximal ports of the tube which track down the common bile duct and into the area of known anastomotic leak. Subsequently, it was decided to attempt to pass a wire through the tube to see if there was a clog. A 0.035 [\*\*Last Name (un) 2244\*\*] wire was easily advanced through the tip of the tube into the jejunum. At this time, it was thought that perhaps the end holes were clogged. The indwelling tube was a modified nephrostomy tube and the holes are small. Therefore, the current tube was removed over the [\*\*Last Name (un) 2244\*\*] wire. Inspection of the tube showed that the distal holes were indeed clogged. It was decided to [\*\*First Name11 (Name Pattern1) \*\*] [\*\*Initial (NamePattern1) \*\*] [\*\*Last Name (NamePattern1) \*\*] tube with large holes both proximally and distally. A 12-French nephrostomy tube was modified with an 11 blade scalpel such that large holes would be present both proximal and distal to anastomotic leak. We used the prior tube to determine the placement of the holes on the current tube. The modified tube was advanced over the [\*\*Last Name (un) 2244\*\*] wire such that the tip lay within the jejunum. The proximal holes are seen to be within the intrahepatic common duct and the distal holes are seen to be within the jejunum. A final cholangiogram was obtained showing passage of contrast into the jejunum. The tube was sutured in place with 0-silk sutures and also with a Flexitrak.

(Over)

Clip # [\*\*Clip Number (Radiology) 69149\*\*]

CATH CHEK/REMV

Reason: PTC tube study, pt with decreasing PTC drainageplease send f

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 25

**FINAL REPORT** 

(Cont)

IMPRESSION: Replacement of the tailormadee 12-French nephrostomy tube which is functioning as an internal/external biliary drain. The proximal holes are located proximal to the hepaticojejunal anastomosis. The distal holes are located within the jejunum. Contrast passes freely through the tube into the jejunum. The distal holes on the previously placed tube were clogged. The new tube was attached to a bag and set to gravity drainage.

Dr. [\*\*Last Name (STitle) 7\*\*] was present for the entire study. The results were discussed with Dr. [\*\*Last Name (STitle) 3919\*\*], the fellow on the transplant surgery team.

"[\*\*2110-3-4\*\*] 11:37 AM

CT HEPATIC DRAINAGE; 79 UNRELATED PROCEDURE/SERVICE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 69148\*\*]

CT FINE NEEDLE ASP; -51 MULTI-PROCEDURE SAME DAY

CT GUIDANCE DRAINAGE; CT ABDOMEN W/O CONTRAST

Reason: please place percutanous pigtail in posterolateral hepatic c

Admitting Diagnosis: ELEVATED LFTS

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant with biliary anastamotic leak.

**REASON FOR THIS EXAMINATION:** 

please place percutanous pigtail in posterolateral hepatic collection

No contraindications for IV contrast

# **FINAL REPORT**

HISTORY: Status post liver transplant with bile draining from the [\*\*Last Name (ambig) 3076\*\*] [\*\*Location (un) 1732\*\*]-[\*\*Location (un) 1733\*\*] drain.

FINDINGS:

Comparison is made to the prior study of [\*\*2110-2-28\*\*].

NON-CONTRAST CT ABDOMEN: An initial non-contrast CT of the abdomen was performed, again demonstrating the air and fluid collection medial to the lower aspect of the liver currently measuring 6.7 x 3.8 cm.

The patient was placed in a prone position on the CT table after the risks and benefits of the procedure were explained to the patient and informed consent was obtained.

A region on the skin was localized using CT fluoroscopic guidance and the initial scout images.

CT-GUIDED NEEDLE PLACEMENT: The skin was prepped and draped in standard sterile fashion. Lidocaine was infiltrated subcutaneously. Subsequently, an 18-gauge spinal needle was advanced into the collection and about 2 cc of

brownish fluid was aspirated. The specimen was sent to the lab for interpretation.

CT-GUIDED CATHETER PLACEMENT: Subsequently, a 10-French locking loop catheter was advanced under direct CT fluoroscopic guidance into the fluid collection.

A locking loop was formed. Approximately 20 cc of brownish fluid was aspirated. The catheter was adhered to the skin.

The patient tolerated the procedure well without immediate complications and left the department in satisfactory condition.

The entire procedure was performed with and directly supervised by Dr. [\*\*First Name8 (NamePattern2) 3537\*\*]

[\*\*Last Name (NamePattern1) 3538\*\*].

# IMPRESSION:

1. Successful CT-guided aspiration and drain placement within a right perihepatic fluid collection.

(Over)

[\*\*2110-3-4\*\*] 11:37 AM

CT HEPATIC DRAINAGE; 79 UNRELATED PROCEDURE/SERVICE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 69148\*\*]

CT FINE NEEDLE ASP; -51 MULTI-PROCEDURE SAME DAY

CT GUIDANCE DRAINAGE; CT ABDOMEN W/O CONTRAST

Reason: please place percutanous pigtail in posterolateral hepatic c

Admitting Diagnosis: ELEVATED LFTS

(Cont)

11

"[\*\*2110-2-28\*\*] 5:21 PM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69147\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 150CC NONIONIC CONTRAST; CT RECONSTRUCTION

Reason: PO&IV contrast. r/o abscess Please do not start PO contrast

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 150

# [\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant s/p hepatojejunostomy with bile in JP drains

#### **REASON FOR THIS EXAMINATION:**

PO&IV contrast. r/o abscess Please do not start PO contrast until after PTC study

No contraindications for IV contrast

#### FINAL REPORT

INDICATION: Status post liver transplant, hepatojejunostomy with bile and JP drains. Evaluate for abscess.

TECHNIQUE: CT of the abdomen and pelvis were performed after the administration of oral and IV contrast. 100 cc of optiraly nonionic contrast was given, and nonionic contrast was given due to patient debility.

COMPARISON: CT performed [\*\*2110-2-3\*\*]

#### FINDINGS:

CT OF THE ABDOMEN WITH CONTRAST: The lung bases are clear. There is trace bibasilar atelectasis vs. trace effusions. A percutaneous biliary drainage catheter is present. Inferior to the liver, there is a loculated collection of fluid, containing bubbles of gas, measuring up to 7.3 x 2.9 cm in cross sectional size. In this location on the prior study, there was a similar loculation of material containing gas measuring 2.3 x 4.0 cm, but the [\*\*First Name8 (NamePattern2) 1732\*\*]

[\*\*Last Name (NamePattern1) 1733\*\*] drain has since been removed from this area. Extremely large perisplenic

varices are again seen. The adrenal glands, kidneys, pancreas, stomach, and small bowel are within normal limits. There are multiple small, nonpathologically enlarged retroperitoneal lymph nodes. No significant abdominal lymphadenopathy is evident. There is a lesser degree of mesenteric fat stranding than on the prior study.

The tip of the PTC terminates within the duodenum in a pig-tail. Post pyloric feeding tube reaches the third portion of the duodenum.

CT OF THE PELVIS WITH CONTRAST: There is a large amount of stool throughout the colon, besides the sigmoid colon and rectum. A small amount of free fluid tracks into the pelvis. There is no significant pelvic lymphadenopathy.

Examination of the osseous structures show mild degenerative changes without evidence of lytic or blastic lesions.

Multiplanar reformatted images are used to help assess the fluid collections described above.

(Over)

[\*\*2110-2-28\*\*] 5:21 PM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST

Clip # [\*\*Clip Number (Radiology)

69147\*\*]

CT 150CC NONIONIC CONTRAST; CT RECONSTRUCTION

Reason: PO&IV contrast. r/o abscess Please do not start PO contrast

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 150

## FINAL REPORT

(Cont)

IMPRESSION:

Intrahepatic fluid collection containing air bubbles, which appear slightly larger than on the prior study, could represent surgical packing material or abscess. Correlation with surgical history. No new fluid collections are present.

"[\*\*2110-1-28\*\*] 10:13 PM

**HEPATIC** 

Clip # [\*\*Clip Number (Radiology) 69109\*\*]

Reason: Please do a hepatic arterogram to evaluate hpatic artery [\*\*Doctor First Name \*\*]

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

Contrast: OPTIRAY Amt: 40

\* [\*\*Numeric Identifier 1615\*\*] INITAL 2ND ORDER ABD/PEL/LOWER -51 MULTI-PROCEDURE SAME DAY

\* [\*\*Numeric Identifier 409\*\*] VISERAL SEL/SUPERSEL A-GRAM NON-IONIC LESS THAN 100CC

\*

\*

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p split liver transplant

**REASON FOR THIS EXAMINATION:** 

Please do a hepatic arterogram to evaluate hpatic artery anastamosis

#### FINAL REPORT

INDICATIONS: Status post liver transplant with diminished arterial hepatic flow by CAT scan.

HEPATIC ARTERIOGRAM: Details of the procedure and possible complications were explained to the patient and informed consent was obtained.

RADIOLOGISTS: Dr. [\*\*Last Name (STitle) 2243\*\*] and Dr. [\*\*Last Name (STitle) 7\*\*]. Dr. [\*\*Last Name (STitle) 7\*\*] was present for the entire procedure.

TECHNIQUE: Using sterile technique, local anesthesia and conscious sedation the right common femoral artery was punctured and the 5 French sheath was introduced over a guidewire using Seldinger technique. A 5 French C2 glide catheter was then placed through the sheath over the guidewire and its tip positioned in the common hepatic artery under fluoroscopic guidance. Hepatic arteriogram was performed in AP and oblique projections. The catheter and sheath were then removed and hemostasis was achieved. The patient tolerated the procedure well. There were no immediate complications.

CONTRAST: 40 cc of nonionic contrast material were used.

FINDINGS: The patient is status post liver transplant. There is opacification of short segment of hepatic propia artery after take off of the gastroduodenal artery and only few small branches are seen in the posterior segment of the liver, but overall, there is pretty much no hepatic arterial blood supply to the liver.

IMPRESSION: Status post liver transplant with markedly reduced hepatic arterial flow. The findings were discussed with Dr. [\*\*First Name8 (NamePattern2) \*\*] [\*\*Last Name (NamePattern1) 236\*\*].

52 year old man s/p liver transplant s/p hepatiocjejunostomy

**REASON FOR THIS EXAMINATION:** 

PICC for IV Abx - plan d/c today

HISTORY: Liver transplant with ongoing infection requiring antibiotics. Failed attempts at bedside placement of PICC line.

PHYSICIANS: The procedure was performed by Dr[\*\*Initials (NamePattern4) \*\*] [\*\*Last Name (NamePattern4) 324\*\*] and [\*\*Doctor Last Name \*\*] [\*\*Doctor Last Name 325\*\*] with Dr. [\*\*Last Name (STitle) \*\*] [\*\*Name (STitle) 325\*\*] (staff radiologist) present and supervising.

PROCEDURE AND FINDINGS: The patient was placed supine on the angiography table. His right upper arm was prepped in sterile fashion. Since no suitable superficial veins were visible, ultrasound was used for localization of a suitable vein. The basilic vein was patent and compressible. After local anesthesia with 1% Lidocaine, the basilic vein was entered under ultrasonographic guidance with a 21 gauge needle. An 0.018 guidewire was advanced under fluoroscopy into the superior vena cava (SVC). Based on the markers on the guidewire it was determined that a length of 32 cm would be suitable. The PICC line was trimmed to length and advanced over a 4 French introducer sheath under fluoroscopic guidance into the SVC. The sheath was removed. The catheter was flushed. A final chest x- ray was obtained. The film demonstrates the tip to be in the SVC just above the atrium. A Stat-Lock was applied and the line was hep-locked. The line is ready for use.

IMPRESSION: Successful placement of a 32 cm long, 4 French single lumen right basilic PICC line with tip in the superior vena cava, ready for use.

[\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE CATHETER; 78 RELATED PROCEDURE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 69117\*\*]

[\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING CATHETER; 78 RELATED PROCEDURE DURING POSTOPERATIVE PERIOD

<sup>&</sup>quot;[\*\*2110-2-21\*\*] 2:21 PM

-51 MULTI-PROCEDURE SAME DAY; [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CONTRAST

[\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM; CATHETER, DRAINAGE

Reason: Attn: Dr.[\*\*Last Name (STitle) 27\*\*]. PTHC with possible ligation of duct leak as

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 70

# [\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant POD30. Tube cholangiogram showed strictures.

## **REASON FOR THIS EXAMINATION:**

Attn: Dr.[\*\*Last Name (STitle) 27\*\*]. PTHC with possible ligation of duct leak as discussed with Dr. [\*\*Last Name (STitle) 3919\*\*]

#### FINAL REPORT

INDICATION: 52 year old man with liver transplant, post-op day 30. Tube cholangiogram demonstrates probable leak from a peripheral bile duct. Extrabiliary drain putting out 300 cc a day. Please evaluate for leak and percutaneously ligate if possible.

RADIOLOGISTS PERFORMING PROCEDURE: Dr. [\*\*First Name8 (NamePattern2) \*\*] [\*\*Last Name (NamePattern1) 994\*\*]; Dr. [\*\*First Name8 (NamePattern2) 413\*\*] [\*\*Name (STitle) 7\*\*], the staff radiologist, present throughout the entire procedure.

PROCEDURE/TECHNIQUE: Informed, written consent was obtained. The right flank and indwelling Silastic catheter were prepped and draped in the usual sterile fashion. The catheter was injected. This demonstrated the catheter to be within the biliary tree. There was prompt filling of the biliary tree.

Contrast flowed freely into a wide anastomotic leak. Contrast filled within

this collection and was seen moving into the JP type drain.

At this point the extensive suture material was removed. An 035 angled glidewire was then passed through the Silastic catheter into the roux limb. The Silastic catheter was removed and exchanged for a 6 French angiographic sheath. A Kumpe catheter was advanced over the glidewire. The glidewire was then exchanged for a 035 [\*\*Last Name (un) 414\*\*] wire. The catheter was removed and a second [\*\*Last Name (un) 414\*\*] wire was advanced into the central biliary system. The angiographic sheath was then exchanged and readvanced over the wire located within the central biliary tree. The second wire within the roux limb was secured and used as a safety wire. An antegrade cholangiogram was then performed through the sheath. This demonstrated a wide leak at the anastomosis. The peripheral leaking duct could not be identified. This is felt to be related to a steal phenomenon caused by the free flow of contrast from the anastomotic leak into the extrahepatic bile collection. Multiple attempts were made attempting to opacify the peripheral leaking duct. These were mostly unsuccessful. Only the proximal portion could be opacified by placing the Kumpe catheter near the anastomosis and injecting contrast. Attempts were made at selecting this duct using an 035 angled glidewire, an 018 wire, renegade catheter and a Kumpe catheter as well as a 4 French C2 catheter. These were all unsuccessful. Other visualized ducts were selected out with the renegade catheter and contrast was injected to confirm that these ducts were not the peripheral duct that was leaking.

(Over)

[\*\*2110-2-21\*\*] 2:21 PM

[\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE CATHETER; 78 RELATED PROCEDURE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 69117\*\*]

[\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING CATHETER; 78 RELATED PROCEDURE

**DURING POSTOPERATIVE PERIOD** 

-51 MULTI-PROCEDURE SAME DAY; [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH

W/CONTRAST

[\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM; CATHETER, DRAINAGE

Reason: Attn: Dr.[\*\*Last Name (STitle) 27\*\*]. PTHC with possible ligation of duct leak as

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt: 70

**FINAL REPORT** 

(Cont)

At this point all equipment was removed and a 10 French internal/external

biliary drain was advanced over the safety wire into the roux limb. The

pigtail was formed in this location. Sideholes extended from the pigtail

within the roux limb into a peripheral right hepatic duct. Contrast was

injected and demonstrated filling of the roux limb as well as the biliary

tree. The catheter was secured to the skin using O-silk and Flexi-[\*\*Last Name (un) \*\*]. The

catheter was placed to external drainage.

COMPLICATIONS: None.

CONTRAST/MEDICATIONS: IV conscious sedation consisted of incremental doses of

Versed and Fentanyl. 10 cc of 1% Lidocaine. 100 cc of Conray 60.

IMPRESSION: Cholangiogram showing a large leak at the anastomosis which fills

an extrahepatic biliary collection that is drained by the JP drain.

The known leak within a peripheral medial duct (probably right posterior)

could not be opacified on this examination secondary to steal phenomenon associated with this anastomotic leak. Therefore a 10 French internal/external biliary drainage catheter was placed with the pigtail formed in the roux limb and sideholes extending into the right peripheral duct. The catheter was placed to external drainage.

"[\*\*2110-9-9\*\*] 5:43 PM

CHEST (PORTABLE AP)

Clip # [\*\*Clip Number (Radiology) 68639\*\*]

Reason: right ij placement status post manipulation

Admitting Diagnosis: ABDOMINAL PAIN

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man s/p ex lap

**REASON FOR THIS EXAMINATION:** 

right ij placement status post manipulation

# **FINAL REPORT**

INDICATION: Status post exploratory laparotomy. Right IJ central venous line placement.

Evaluate position.

PORTABLE AP CHEST X-RAY: Comparison made to study from [\*\*2110-9-5\*\*]. A right IJ central venous catheter is again seen, and has undergone interval withdrawal. The tip is now positioned in the IJ, and not in the SVC. A left-sided

effusion is noted. A left basilar opacity is seen, which represents either atelectasis or consolidation. The heart size and mediastinal contours are unchanged. No pneumothorax is seen. A pigtail catheter is again seen overlying the right upper quadrant. Surgical clips are noted in the left axilla.

IMPRESSION: Interval withdrawal of the right IJ central venous line, with the tip now positioned in the right IJ. Slight interval worsening of the left pleural effusion and left retrocardiac opacities, possibly representing atelectasis or consolidation.

"[\*\*2110-9-29\*\*] 12:10 PM

CT ABD W&W/O C; CT PELVIS W/CONTRAST

Clip # [\*\*Clip Number (Radiology) 68645\*\*]

CT 100CC NON IONIC CONTRAST

Reason: Pt is s/p liver transplant who needs an abd Ct with po and I

Field of view: 38 Contrast: VISAPAQUE Amt: 100

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with hep c cirrhosis s/p liver transplant

**REASON FOR THIS EXAMINATION:** 

Pt is s/p liver transplant who needs an abd Ct with po and IV contrast to rule out a biloma in the porta

**FINAL REPORT** 

HISTORY: Liver transplant with bile leak and indwelling drains. Assess for ibloma and porta hepatis.

COMPARISON: [\*\*2110-9-15\*\*].

TECHNIQUE: Multiphasic pre and postcontrast CT of the abdomen with delayedenhanced imaging of the abdomen and pelvis.

CONTRAST: 100 cc of Visipaque secondary to high creatinine.

CT OF ABDOMEN WITHOUT & WITH IV CONTRAST: There is an internal-external biliary drain entering through the right portion of the liver. There is also a surgical drain entering the porta hepatis with a small amount of gas around its distal portion. There is no fluid collection in the porta hepatis. There is moderate amount of ascites that remains distributed throughout the abdomen, thouth less than on the prior study. Portions of this appear to be loculating in the right lower quadrant with enhancing rims. The liver itself enhances uniformly. The intrahepatic vessels appear patent, though the portal vein in the porta hepatis is difficult to identify, which may relate to artifact from the adjacent drain or which may imply that it is somewhat narrowed, perhaps at the anastamosis-- an appearance which is unchanged. The extrahepatic portal vein proximal to he porta hepatis is patent, as is the splenic vein. There are very large splenorenal varices persisting. There is persistent splenomegaly as well. There are scattered small lymph nodes throughout the mesentery and retroperitoneum, not significantly changed. There is a fair amount of stool throughout the colon, and there is small bowel dilatation with smooth wall thickening. This appearance is consistent with ileus. The kidneys themselves are unremarkable and the adrenal glands and pancreas are within normal limits. There is no free air.

CT OF THE PELVIS WITH IV CONTRAST: There is no free air. There is no adenopathy. There is postsurgical stranding in the subcutaneous fat from the patient's incision.

hepatis. Ileus. (Over) [\*\*2110-9-29\*\*] 12:10 PM CT ABD W&W/O C; CT PELVIS W/CONTRAST Clip # [\*\*Clip Number (Radiology) 68645\*\*] CT 100CC NON IONIC CONTRAST Reason: Pt is s/p liver transplant who needs an abd Ct with po and I Field of view: 38 Contrast: VISAPAQUE Amt: 100 FINAL REPORT (Cont) "[\*\*2110-9-24\*\*] 3:35 PM CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 68644\*\*] Reason: Pt s/p liver transplant with right PTC in place now leaking ICD9 code from order: V42.7 Contrast: CONRAY Amt: 30 \* [\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE C [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C \* \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CON \* \* [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM CATHETER, DRAINAGE

IMPRESSION: Decreased amount of ascites. No fluid collection in the porta

## [\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with liver transplant with existing Ttube and leaking fliud around tube

## **REASON FOR THIS EXAMINATION:**

Pt s/p liver transplant with right PTC in place now leaking copius amts of fluid around PTC. Needs tube check and possible stent change.

\_\_\_\_\_

## FINAL REPORT

HISTORY: 53-year-old male status post liver transplant with right TTBD catheter. Catheter has been leaking copious amounts of fluid around the exit site. Please perform cholangiogram with possible catheter exchange.

PROCEDURE/FINDINGS: The procedure was performed by Dr. [\*\*First Name4 (NamePattern1) 411\*\*] [\*\*Last Name (NamePattern1) 412\*\*] and Dr.

[\*\*First Name8 (NamePattern2) 2091\*\*] [\*\*Last Name (NamePattern1) 27\*\*]. Dr. [\*\*Last Name (STitle) 27\*\*], the staff radiologist, was present and supervising

throughout. After the risks and benefits of the procedure were discussed with the patient and informed consent was obtained, the patient was placed supine on the angiography table. His abdomen including the existing catheter was prepped and draped in the standard sterile fashion. The skin and subcutaneous tissues surrounding the catheter were anesthetized with 10 cc of 1% lidocaine.

A fluoroscopic spot image was obtained, demonstrating the catheter tip to be withdrawn as compared with the prior film from [\*\*2110-9-9\*\*]. Tube cholangiogram was then performed using 10 cc of hand-injected contrast. This demonstrated that the holes at the distal portion of the catheter were fluted as contrast flowed through the proximal side holes into the right hepatic duct and the jejunal loop. As compared with previous tube cholangiograms, the right hepatic duct was significantly more dilated. The catheter was then cut releasing the pigtail. A .035 [\*\*Doctor Last Name 8\*\*] wire was advanced through the exiting

catheter into the jejunum under fluoroscopy. The catheter was removed. A 5 Fr

C2 Cobra catheter was then advanced over the guide wire into the proximal
jejunum. The guide wire was then removed and hand injection of 10 cc of
contrast confirmed the position of the catheter within the jejunum beyond the
surgical anastomosis. A .035 [\*\*Location (un) 1406\*\*] J-wire was then advanced into the jejunum
through the 5 Fr C2 Cobra catheter. The catheter was removed. A 10 Fr biliary
catheter was advanced over the guide wire into the jejunum. The guide wire was
removed. The pigtail was formed and locked in the jejunum beyond the
anastomosis. Repeat cholangiography via the new 10 Fr biliary drainage
catheter confirmed the position of the side holes throughout the biliary tree
and into the jejunal loop. The contrast was aspirated and the catheter was
flushed with 10 cc of normal saline. The catheter was placed to external bag
drainage. It was secured to the skin using a #0 silk suture. A StatLock was
applied, followed by a dry sterile gauze dressing.

(Over)

[\*\*2110-9-24\*\*] 3:35 PM

CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 68644\*\*]

Reason: Pt s/p liver transplant with right PTC in place now leaking

ICD9 code from order: V42.7

Contrast: CONRAY Amt: 30

\_\_\_\_\_

FINAL REPORT

(Cont)

COMPLICATIONS: None.

CONTRAST: 25 cc of 60% Conray.

MEDICATIONS: 1% lidocaine. 2 mg of intravenous Dilaudid was given in intermittent doses by the Nursing staff with continuous monitoring of vital signs.

IMPRESSION: Tube cholangiography performed via the existing 10 Fr biliary drainage catheter demonstrated occlusion of the distal side holes of the catheter. The right hepatic duct was significantly dilated as compared with previous studies. This catheter was successfully replaced with new 10 Fr percutaneous transhepatic biliary drainage catheter. The side holes of the catheter extend throughout the biliary tree and into the jejunal loop. The pigtail is formed in the jejunal loop beyond the surgical anastomosis. The catheter was placed to external bag drainage. These findings were discussed with the Transplant Surgery service at the time of the procedure.

"[\*\*2110-9-15\*\*] 9:20 PM

CT PELVIS W/CONTRAST; CT ABDOMEN W/CONTRAST 68642\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 150CC NONIONIC CONTRAST

Reason: eval for fluid collection and eval transit through bowel

Admitting Diagnosis: ABDOMINAL PAIN

Field of view: 38 Contrast: OPTIRAY Amt: 150

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with hep c cirrhosis s/p liver transplant, wis/p washout

for bile peritonitis

**REASON FOR THIS EXAMINATION:** 

eval for fluid collection and eval transit through bowel

CONTRAINDICATIONS for IV CONTRAST:

evelated cr

\_\_\_\_\_

FINAL REPORT

INDICATION: Hepatitis C cirrhosis, status post liver transplant, status post wash-out for bioperitonitis.

Comparison is made to prior CT dated [\*\*2110-9-5\*\*].

TECHNIQUE: Helically-acquired contiguous axial images were obtained from the lung bases to the pubic symphysis following administration of 150 cc of Optiray contrast.

CT OF THE ABDOMEN WITH IV CONTRAST: The visualized lung bases demonstrate a partial left lower lobe atelectasis or consolidation. There is also a tiny left-sided pleural effusion. The transplanted liver is unchanged in appearance. A percutaneous transhepatic drainage catheter is again appreciated, terminating in the hilum. There is also a catheter originating on the right lower quadrant terminating ajdacent to this region, with a tiny focus of air noted along its course. Multiple persistent splenic varices are

again appreciated. The pancreas, adrenals, and kidneys are unchanged in

appearance. There is an interval increase in the amount of ascites which is

now moderate to large in size. There is no evidence of obstruction with free

passage of oral contrast. Skin staples are noted along the anterior abdominal

wall.

CT OF THE PELVIS WITH IV CONTRAST: The distal ureters, urinary bladder,

rectum, and sigmoid are unremarkable. There is no pelvic or inguinal

lymphadenopathy. Note is made of anasarca in the subcutaneous tissues. There

is increase in the degree of free fluid.

BONE WINDOWS: There are no suspicious lytic or sclerotic lesions.

**IMPRESSION:** 

1. Partial left lower lobe atelectasis or consolidation.

2. Marked interval increase ascites.

3. No evidence of obstruction.

4. Note is made that this study is unable to document the patency of the

portal vein, with its distal extent partial obscured by drainage catheters.

Given associated findings, patency could be confirmed by ultrasound if

(Over)

[\*\*2110-9-15\*\*] 9:20 PM

CT PELVIS W/CONTRAST; CT ABDOMEN W/CONTRAST

Clip # [\*\*Clip Number (Radiology)

68642\*\*]

CT 150CC NONIONIC CONTRAST

Reason: eval for fluid collection and eval transit through bowel

Admitting Diagnosis: ABDOMINAL PAIN

Field of view: 38 Contrast: OPTIRAY Amt: 150

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#### FINAL REPORT

(Cont)

clinically indicated.

11

"[\*\*2110-9-10\*\*] 1:10 PM

BX-NEEDLE LIVER BY RADIOLOGIST; 79 UNRELATED PROCEDURE/SERVICE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 68640\*\*]

GUIDANCE/LOCALIZATION FOR NEEDLE BIOPSY US (S&I)

Reason: r/o rejection vs recurrent hepc

Admitting Diagnosis: ABDOMINAL PAIN

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with rising lfts

REASON FOR THIS EXAMINATION:

r/o rejection vs recurrent hepc

\_\_\_\_\_

## FINAL REPORT

INDICATION: Liver transplant, with elevated LFT's.

TECHNIQUE: After the risks and benefits of the procedure were explained to the patient, written informed consent was obtained. Using local anesthesia, sterile technique and ultrasound guidance, an 18 ga core biopsy sample was obtained from the right lobe of the liver. No immediate complications.

IMPRESSION: Uneventful random liver biopsy. Dr. [\*\*Last Name (STitle) 3538\*\*] was present during the entire procedure.

"[\*\*2110-9-16\*\*] 1:42 PM

DUPLEX DOPP ABD/PEL

Clip # [\*\*Clip Number (Radiology) 68768\*\*]

Reason: liver transplant us, (rt lobe live donor receipient) new asc

Admitting Diagnosis: ABDOMINAL PAIN

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with new ascites

**REASON FOR THIS EXAMINATION:** 

liver transplant us, (rt lobe live donor receipient) new ascites. r/o portal vein thromb/stenosis. PLEASE DO AT SAME TIME AS PARACENTESES AND DRAIN

**PLACEMENT** 

FINAL REPORT

LIVER ULTRASOUND, [\*\*2110-8-17\*\*]:

INDICATION: Liver transplant ultrasound with new ascites.

FINDINGS: A limited scan of the liver was performed, demonstrating no intrahepatic biliary ductal dilatation. The main portal vein is patent, with normal, hepatopetal bloodflow. Hepatic veins are likewise patent. Flow is seen within the hepatic arteries.

IMPRESSION: Normal appearing liver transplant, with patent portal vein and hepatic veins.

11

"[\*\*2110-9-16\*\*] 1:42 PM

PARACENTESIS DIAG. OR THERAPEUTIC; GUIDANCE FOR [\*\*Female First Name (un) 584\*\*]/ABD/PARA

CENTESIS USClip # [\*\*Telephone/Fax (1) 68643\*\*]

Reason: ASCITES S/P EX lap and drain placement. please preform therp

Admitting Diagnosis: ABDOMINAL PAIN

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

s/p liver transplant with ascites. please send gm stain, culture, lytes, total

protein, cellcount glucose and bili

**REASON FOR THIS EXAMINATION:** 

ASCITES S/P EX lap and drain placement. please preform therp tap and PLEASE

PLACE DRAIN

\_\_\_\_\_\_

FINAL REPORT

INDICATION: Ascites.

TECHNIQUE: After the risks and benefits of the procedure were explained to the patient, written informed consent was obtained. Pre-procedure time out information was obtained, confirming the patient's identity and the nature of the procedure.

Using ultrasound guidance, sterile technique and local anesthesia, an 8 french pigtail catheter was advanced into the peritoneum via the left anterior abdominal wall, yielding transparent reddish fluid. The catheter was attached to a drainage bag. No immediate complications.

IMPRESSION: Uneventful paracentesis with drain placement. No immediate complications.

Dr. [\*\*Last Name (STitle) 1267\*\*] was present during the procedure.

11

"[\*\*2110-9-10\*\*] 6:16 PM

CHEST (PORTABLE AP) Clip # [\*\*Clip Number (Radiology) 68641\*\*]

Reason: Check placement of R. sided PICC

Admitting Diagnosis: ABDOMINAL PAIN

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man s/p ex lap

**REASON FOR THIS EXAMINATION:** 

Check placement of R. sided PICC

\_\_\_\_\_\_

## FINAL REPORT

INDICATION: Evaluate placement of right sided PICC.

PORTABLE AP CHEST X RAY: Comparison is made to study from [\*\*2110-8-20\*\*]. There has been interval removal of a right IJ central venous catheter, and placement of a right sided PICC line, with the tip visualized in the distal SVC. Left basilar opacity is again seen unchanged. Left effusion is also again noted. Heart size and mediastinal contours are unchanged. No pneumothorax is seen. A pigtail catheter is again seen overlying the right upper quadrant and unchanged.

IMPRESSION: Interval placement of right sided PICC line, with tip positioned in the distal SVC. Remainder of the exam remains unchanged.

53 year old man with

REASON FOR THIS EXAMINATION:

please do a retrograde study of drain

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## **FINAL REPORT**

1

HISTORY: A 53-year-old male status post [\*\*First Name8 (NamePattern2) 16279\*\*] [\*\*Last Name (NamePattern1) 1280\*\*] hepaticojejunostomy with

right PTBD and additional intraperitoneal [\*\*Doctor Last Name \*\*] drain likely through a fistula tract into the jejunum. Please perform injection of [\*\*Doctor Last Name \*\*] drain to assess for leak or fistula.

PROCEDURE/FINDINGS: The procedure was performed by Dr. [\*\*First Name4 (NamePattern1) 411\*\*] [\*\*Last Name (NamePattern1) 412\*\*] and

Dr. [\*\*First Name8 (NamePattern2) 2091\*\*] [\*\*Last Name (NamePattern1) 27\*\*]. Dr. [\*\*Last Name (STitle) 27\*\*], the staff radiologist, was present and

supervising throughout. After the risks and benefits of the procedure were

discussed with the patient and informed consent was obtained, the patient was

placed supine on the angiography table. His abdomen, including both drains,

was prepped and draped in the standard sterile fashion. Under fluoroscopic

visualization, 10 cc of contrast was hand injected through the [\*\*Doctor Last Name \*\*] drain.

This demonstrated filling of the jejunal loop along with retrograde

opacification of the biliary ducts as well. There was no evidence of

extravasation. This finding was consistent with the presence of a a fistula

between the intraperitoneal tract and the jejunal loop. The right PTBD

catheter was also present and with the pigtail formed in the jejunal loop

beyond the anastomosis. These findings were discussed with the transplant

surgery service at the time of the procedure. After a discussion with Dr. [\*\*First Name8 (NamePattern2)

\*\*]

[\*\*Last Name (NamePattern1) 908\*\*] from the transplant service, it was decided that the catheter

would be

withdrawn until the tip of the [\*\*Doctor Last Name \*\*] drain was present outside the jejunal

loop. Perhaps this would allow the fistula tract to close down over time. Once

the [\*\*Doctor Last Name \*\*] drain was appropriately positioned, it was secured to the skin using

a 0-silk suture. Following the procedure, the bile ducts were emptied of

contrast. The [\*\*Doctor Last Name \*\*] drain was placed to bulb suction. The patient tolerated

the procedure well and was transferred to the recovery room following the

procedure in stable condition.

COMPLICATIONS: None.

CONTRAST: 30 cc of 60% Optiray.

IMPRESSION: Hand injection of contrast into the intraperitoneal [\*\*Doctor Last Name \*\*] drain

demonstrated filling of the jejunal loop along with retrograde opacification of the biliary tree. This study confirmed the presence of a fistula between (Over)

[\*\*2110-9-9\*\*] 10:31 AM

CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 68638\*\*]

Reason: please do a retrograde study of drain

Admitting Diagnosis: ABDOMINAL PAIN

Contrast: OPTIRAY Amt: 30

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### FINAL REPORT

(Cont)

the intraperitoneal tract, in which the [\*\*Doctor Last Name \*\*] drain was positioned, and the jejunal loop. There is no evidence of extravasation of contrast. After a discussion with the transplant surgery service, it was determined that the [\*\*Doctor Last Name \*\*] drain should be pulled back until the tip was present outside the jejunal loop. This was done successfully under fluoroscopy. With the drain tip appropriately positioned, the catheter was secured to the skin using a 0-silk suture. It was placed to bulb suction.

"[\*\*2110-7-1\*\*] 7:22 AM

CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 69274\*\*]

Reason: pt s/p liver transplant with existing Ttube in place. On [\*\*4-18\*\*]

Admitting Diagnosis: S/P LIVER TRANSPLANT-FEVER

Contrast: CONRAY Amt: 10

- \* [\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE C [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C \*
- \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CON \*
- \* [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM CATHETER, DRAINAGE

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# [\*\*Hospital 4\*\*] MEDICAL CONDITION:

Pt s/p liver transplant with existing Ttube. Cholangiogram from [\*\*5-14\*\*]- Ttube downsized. F/u cholangiogram to assess for bile leak, position of catheter and check for dilation of bile ducts

## **REASON FOR THIS EXAMINATION:**

pt s/p liver transplant with existing Ttube in place. On [\*\*5-14\*\*]- tube downsized by IR. Cholangiogram to check position of tube, check for dilation of bile duct and check for bile leak

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## **FINAL REPORT**

HISTORY: Hepaticojejunostomy with prior bile leak.

TECHNIQUE/FINDINGS: And informed consent was obtained, the patient's previously placed 10-French internal-external biliary drain was prepped and draped in sterile fashion. Under real-time fluoroscopic evaluation, an initial cholangiogram was performed. This demonstrated that the current tube was patent, the biliary tree was decompressed, and there was no leakage of contrast.

The current tube was removed over a 0.035 [\*\*Last Name (un) 414\*\*] wire after which a similar tube was placed and post-placement cholangiogram was performed to confirm position. Again, no evidence of leakage, free fluid into the jejunum,

decompressed biliary tree. Of note, the current tube was patent though side holes were markedly compromised by debris.

IMPRESSION: Patent decompressed biliary tree, no leakage, free flow into the jejunum. Current 10-French drain replaced with similar drain without complication.

11

"[\*\*2110-6-28\*\*] 12:53 AM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69273\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 100CC NON IONIC CONTRAST

Reason: S/P LIVER TX; EVAL ABD PAIN

Admitting Diagnosis: S/P LIVER TRANSPLANT-FEVER

Field of view: 30 Contrast: OPTIRAY Amt: 100

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with

REASON FOR THIS EXAMINATION:

S/P LIVER TX; EVAL ABD PAIN

CONTRAINDICATIONS for IV CONTRAST:

**HIGH CRT** 

\_\_\_\_\_

WET READ: AZm SAT [\*\*2110-6-28\*\*] 1:56 AM

No acute pathology. Unchanged study

FINAL REPORT \*ABNORMAL!

INDICATION: Abdominal pain. Patient has a liver transplant.

TECHNIQUE: Helically aquired contiguous axial images were obtained from the

lung bases through the pubic symphysis.

CONTRAST: Oral and 100 cc of IV Optiray were administered.

COMPARISON: [\*\*2110-6-13\*\*].

CT ABDOMEN WITH IV CONTRAST: Mild atelectasis is present at the lung bases.

Post surgical changes are seen in the transplanted liver including a JP drain

terminating at the liver hilum and a biliary stent. There is air in the

surgical bed, likely secondary to the JP drain and biliary stent. No focal

liver lesions are identified. The portal vein appears patent. There is no

intrahepatic biliary ductal dilatation. There is stable splenomegaly.

Splenorenal shunt and perisplenic variceas are again noted. There are no

perihepatic or other fluid collections. The adrenals, kidneys and proximal

ureters are unremarkable. There is no mesenteric or retroperitoneal

lymphadenopathy. There is no free air or free fluid. The abdominal loops of

small and large bowel and the pancreas appear unremarkable.

CT PELVIS WITH IV CONTRAST: Few scattered diverticuli are seen in the large

bowel wihtout evidence of diverticulitis. The rectum, prostate, seminal

vesicles appear unremarkable. There is no free air or free fluid. There are no

focal areas of fluid collections. There is no pelvic or inguinal

lymphadenopathy.

IMPRESSION:

1) No evidence of abscess or fluid collection.

2) Stable splenomegaly and varices.

- 3) Post surgical changes with transplanted liver.
- 4) No significant change from [\*\*2110-6-13\*\*].

(Over)

[\*\*2110-6-28\*\*] 12:53 AM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69273\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 100CC NON IONIC CONTRAST

Reason: S/P LIVER TX; EVAL ABD PAIN

Admitting Diagnosis: S/P LIVER TRANSPLANT-FEVER

Field of view: 30 Contrast: OPTIRAY Amt: 100

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## FINAL REPORT \*ABNORMAL!

(Cont)

11

"[\*\*2110-7-16\*\*] 8:30 AM

BX-NEEDLE LIVER BY RADIOLOGIST; GUIDANCE/LOCALIZATION FOR NEEDLE BIOPSY US (S&I)Clip # [\*\*Clip Number (Radiology) 69275\*\*]

Reason: PLEASE U/S BIOPSY 1ST THING IN AM TO R/O REJECTION. MUST GE

Admitting Diagnosis: ELEVATED LFTS;S/P LIVER TRANSPLANT

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[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with Hep C s/p liver transplant c/b rejection, now with

increasing LFT's

REASON FOR THIS EXAMINATION:

PLEASE U/S BIOPSY 1ST THING IN AM TO R/O REJECTION. MUST GET SAMPLE BY 9AM.

PAGE [\*\*Numeric Identifier 3920\*\*] WITH ?S

FINAL REPORT

INDICATION: ? liver rejection.

PROCEDURE: After a pre-procedure time out to confirm the identity of the patient and the procedure which he was to undergo, informed consent was obtained. Using ultrasound guidance and sterile technique, a single pass with a #18 gauge core biopsy needle was performed of the right lobe of the liver. There were no complications and the patient tolerated the procedure well. Dr. [\*\*First Name (STitle) 547\*\*], staff radiologist, was present throughout the entire procedure.

IMPRESSION: Successful liver biopsy. The patient was returned to the floor in stable condition.

"[\*\*2110-3-19\*\*] 11:27 AM

CHEST (PA & LAT)

Clip # [\*\*Clip Number (Radiology) 69152\*\*]

Reason: infiltrate?

Admitting Diagnosis: ELEVATED LFTS

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with fever, tachypnea s/p liver transplant

**REASON FOR THIS EXAMINATION:** 

infiltrate?

FINAL REPORT

HISTORY: Fever and tachypnea.

PA/LATERAL CHEST: Comparison is made with [\*\*2110-3-11\*\*]. The right internal jugular venous catheter and feeding tubes are unchanged in position. There are low lung volumes. There is a patchy opacity at the left lung base, likely representing atelectasis. There is elevation of both hemidiaphragms and a hazy appearance within the abdomen, which could represent ascites. No vascular congestion or pneumothorax. The cardiac and mediastinal contours are stable.

IMPRESSION: No definite pneumonia. Appearance consistent with ascites.

"

"[\*\*2110-3-11\*\*] 4:51 PM

CHEST (PORTABLE AP) Clip # [\*\*Clip Number (Radiology) 69150\*\*]

Reason: line placement

Admitting Diagnosis: ELEVATED LFTS

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant s/p line placement in operating room

**REASON FOR THIS EXAMINATION:** 

line placement

\_\_\_\_\_

**FINAL REPORT** 

CHEST:

INDICATION: S/P liver transplant. Check line placement and r/o pneumothorax.

FINDINGS: A single AP supine image. Comparison study dated [\*\*2110-3-10\*\*]. A new right IJ central line has been inserted. Its tip is just below the SVC right atrial junction. The NG line remains well positioned with its tip in the duodenum. The heart is within normal limits in size. The pulmonary vessels are

unremarkable. There is no evidence of cardiac failure. Some minor linear atelectases are noted at the left base, associated with slight elevation of the left diaphragm. Surgical drains again overlie the right upper quadrant of the abdomen.

IMPRESSION: 1) Satisfactory placement of lines. 2) No acute cardiopulmonary abnormality. 3) Minor atelectases noted at left base.

"

"[\*\*2110-3-19\*\*] 2:28 PM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69153\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 150CC NONIONIC CONTRAST

Reason: FEVERS

Admitting Diagnosis: ELEVATED LFTS

Contrast: OPTIRAY Amt:

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant s/p hepatojejunostomy and POD 8 from bile anastomosis w/ fevers.

**REASON FOR THIS EXAMINATION:** 

CT w/ PO and IV contrast to r/o collection

No contraindications for IV contrast

**FINAL REPORT** 

INDICATION: Recurrent fevers on post op day eight from a biliary anastomosis hepatojejunostomy and liver transplant.

COMPARISON: [\*\*2110-3-4\*\*].

TECHNIQUE: Contiguous axial images through the abdomen and pelvis were obtained following the administration of oral and IV contrast.

IV CONTRAST: Nonionic contrast was used due to debility.

ABDOMEN WITH CONTRAST: There is atelectasis at both lung bases, left greater than right. There are trace bilateral pleural effusions. The heart is enlarged. An NG tube is in place. Surgical drainage catheters surround the liver. The previously seen heterogeneous collection adjacent to the medial edge of the right lobe of the liver has predominantly resolved, with only a small trace of fluid remaining. This does not appear drainable. There are no focal liver abnormalities. The PCC drain has apparently been removed, and a small amount of high density material is seen along the PCC tract. The spleen is massively enlarged, and there are enormous varices throughout the left abdomen. The pancreas, adrenal glands and kidneys are unremarkable in appearance. A small amount of free abdominal fluid is noted.

PELVIS WITH CONTRAST: The bladder and pelvic loops of bowel are unremarkable in appearance. There is a moderate amount of free pelvic fluid. There is no inguinal or deep pelvic lymphadenopathy.

BONE WINDOWS: There are no suspicious lytic or sclerotic bony lesions.

## **IMPRESSION:**

- 1) Interval near complete resolution of the heterogeneous collection of fluid and gas adjacent to the medial liver edge. No new collections seen.
- 2) Splenomegaly with massive varices.
- 3) Moderate bilateral atelectasis.

4) Moderate amount of pelvic ascites.		
(Over)		
[**2110-3-19**] 2:28 PM		
CT ABDOMEN W/CONTRAST; CT PELVIS W/69153**]	CONTRAST	Clip # [**Clip Number (Radiology)
CT 150CC NONIONIC CONTRAST		
Reason: FEVERS		
Admitting Diagnosis: ELEVATED LFTS		
Contrast: OPTIRAY Amt:		
FINAL REPORT		
(Cont)		
п		
"[**2110-3-13**] 2:25 PM		
CATH CHEK/REMV	Clip # [**Clip	Number (Radiology) 69151**]
Reason: pod#1 s/p revisiion of hepaticojeju (NamePattern4) 16279**] [**Last Name (N		
Admitting Diagnosis: ELEVATED LFTS		
Contrast: OPTIRAY Amt: 50		
**************************************	PT Codes *****	*******
* [**Numeric Identifier 3571**] CHALNAG POSTOPER *	IOGRAPHY VIA E	XISTING C 78 RELATED PROCEDURE DURING
* [**Numeric Identifier 3573**] TUBE CHO	LANGIOGRAM	*
***********	******	*******
[**Hospital 4**] MEDICAL CONDITION:		
53 year old man with living related liver tra	ansplant complic	rated by donor bile

duct necrosis and failed hepaticojej.

#### **REASON FOR THIS EXAMINATION:**

pod#1 s/p revisiion of hepaticojejunostomy to [\*\*Initials (NamePattern4) \*\*] [\*\*Last Name (NamePattern4) 16279\*\*] [\*\*Last Name (NamePattern1) 1280\*\*] (hepaticojej sewn to a new ptc cath) PLEASE CALL DR [\*\*Last Name (STitle) 793\*\*] FOR THIS GRAVITY ONLY INJECTION!! please try between [\*\*1-18\*\*] pm

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#### FINAL REPORT

HISTORY: 53 y/o man status post liver transplant now postop day 1 status post revision of hepaticojejunostomy.

PROCEDURE/FINDINGS: The procedure was performed by Dr. [\*\*Last Name (STitle) 1812\*\*] and Dr. [\*\*Last Name (STitle) 884\*\*], who was present and supervising throughout. The patient's right abdomen and [\*\*First Name8 (NamePattern2) 16279\*\*] [\*\*Last Name (NamePattern1) 1280\*\*] tube were prepped and draped in usual sterile fashion. Contrast was injected via gravity which opacified only the first 5 cm of the 10 cm 12 FR tube. Contrast was passing anteriorly into a collection.

There was no opacification of the bowel observed. The ducts were nondilated.

An 0.035 glide wire was passed into what appeared to be bowel. The wire was then removed and cholangiogram repeated which still did not reveal any passage.

then removed and cholangiogram repeated which still did not reveal any passage of contrast into the bowel. These findings were discussed with Dr. [\*\*Last Name (STitle) \*\*] at the time of procedure. There were no immediate post procedure complications.

#### IMPRESSION:

Tube cholangiogram demonstrating passage of contrast anteriorly into a collection. Only 5 out of 10 cm of a 12 FR tube were visualized with no passage of contrast into the bowel.

11

"[\*\*2110-3-21\*\*] 11:34 AM

CHEST (PORTABLE AP)

Clip # [\*\*Clip Number (Radiology) 69241\*\*]

Reason: placement?

Admitting Diagnosis: ELEVATED LFTS

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant, post pyloric dobhoff, possible

malposition

**REASON FOR THIS EXAMINATION:** 

placement?

FINAL REPORT

INDICATION: NG tube placement.

AP UPRIGHT CHEST: The NG tube is seen extending below the diaphragm, likely within the descending duodenum. There are surgical clips seen within the abdomen. The right central line is unchanged. The heart and lungs are unchanged in appearance. No pneumothorax, new infiltrates, or effusion.

IMPRESSION: NG tube likely within the descending duodenum.

"[\*\*2110-3-10\*\*] 5:05 PM

CHEST (PRE-OP PA & LAT) Clip # [\*\*Clip Number (Radiology) 69196\*\*]

Reason: ELEVATED LFTS

Admitting Diagnosis: ELEVATED LFTS

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man s/p liver transplant now with anastomotic leak

**REASON FOR THIS EXAMINATION:** 

pre-op hepaticojejunostomy

**FINAL REPORT** 

INDICATION: S/P liver transplant now with anastamotic leak preoperative chest radiograph for hepaticojejunostomy.

COMPARISON: [\*\*2110-1-30\*\*].

CHEST, PA & LATERAL RADIOGRAPHS: The cardiac, mediastinal and hilar contours are unremarkable. The lungs are clear. An NG tube is noted with tip extending at least into the duodenum. There are 2 pigtail drains overlying the right upper quadrant and a single JP drain within this region. The osseous structures are unremarkable.

IMPRESSION: No radiographic evidence of acute cardiopulmonary disease. Lines and tubes, as described above.

"[\*\*2110-3-20\*\*] 2:33 PM

CHEST (PORTABLE AP) Clip # [\*\*Clip Number (Radiology) 69197\*\*]

Reason: s/p R IJ cvl change over wire Admitting Diagnosis: ELEVATED LFTS

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man with liver transplant

**REASON FOR THIS EXAMINATION:** 

s/p R IJ cvl change over wire

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### FINAL REPORT

HISTORY: Right IJ line change.

AP UPRIGHT CHEST: Comparison with one day prior, the right internal jugular venous catheter again terminates within the distal SVC. No pneumothorax. The feeding tube is unchanged. No change in the appearance of the heart and lungs. No new infiltrates or evidence of cardiac failure.

"[\*\*2110-5-14\*\*] 1:57 PM

ABDOMEN (SUPINE ONLY)

Clip # [\*\*Clip Number (Radiology) 69268\*\*]

Reason: pt s/p liver transplant currently with NGtube. Pt has had ep

ICD9 code from order: V42.7

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man s/p liver transplant with NGtube

**REASON FOR THIS EXAMINATION:** 

pt s/p liver transplant currently with NGtube. Pt has had episodes of gagging while tube feeds running. KUB to check placement of tube.

## **FINAL REPORT**

INDICATION: Liver transplantation and feeding tube placement.

FINDINGS: A feeding tube is in position with its distal tip in the distal duodenum. A percutaneous drainage tube is present in the right upper quadrant of the abdomen. A surgical clip is present within the right upper quadrant of the abdomen. Retained barium from a previous contrast study is present within the colon. Air is present in the descending colon and rectum with no dilated loops of small or large bowel to suggest obstruction. The osseous structures

are unremarkable.	
IMPRESSION:	
1. Feeding tube in place with its distal tip in the	distal duodenum.
п	
"[**2110-5-14**] 7:49 AM	
CATH CHEK/REMV	Clip # [**Clip Number (Radiology) 69246**]
Reason: Pt s/p liver transplant with existing Ttu	be. Cholangiogram f
Contrast: CONRAY Amt: 30	
******** CPT C	odes *********************
* [**Numeric Identifier 3799**] CHANGE PERC PROCEDURE/SERVICE DURIN *	BILIARY DRAINAGE C 79 UNRELATED
* [**Numeric Identifier 3571**] CHALNAGIOGE PROCEDURE/SERVICE DURIN *	RAPHY VIA EXISTING C 79 UNRELATED
* -51 MULTI-PROCEDURE SAME DAY [**No W/CON *	umeric Identifier 2242**] CHANGE PERC TUBE OR CATH
* [**Numeric Identifier 3573**] TUBE CHOLAN	GIOGRAM CATHETER, DRAINAGE *
* C1769 GUID WIRES INCL INF NON-ION	IC 50 CC *
**********	**********
CLINICAL INFORMATION & QUESTIONS TO BE A	
Pt s/p liver transplant with existing Ttube. Cho	angiogram from [**4-18**] showed

Pt s/p liver transplant with existing Ttube. Cholangiogram from [\*\*4-18\*\*] showed persistent, but improved size of bile leak. F/u cholangiogram to assess bile leak, position of catheter and check for dilation of bile ducts

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FINAL REPORT

INDICATION: Status post liver transplant with existing percutaneous biliary

drain with continued output. Please assess for bile leak, catheter position and biliary obstruction.

PHYSICIANS: The procedure was performed by Drs. [\*\*Last Name (STitle) \*\*] and [\*\*Name5 (PTitle) 27\*\*]. Dr.

[\*\*Last Name (STitle) 27\*\*], the attending radiologist, performed the procedure after a telephone discussion with Dr. [\*\*Last Name (STitle) \*\*].

PROCEDURE/FINDINGS: After explaining the risks and benefits of the procedure, written informed consent was obtained. The patient was placed supine on the angiography table and prepped and draped in the usual sterile fashion. Optiray contrast material was then slowly administered under fluoroscopic guidance via the existing biliary catheter. Contrast passed freely into the Roux-en-Y limb. There was no dilatation of the intrahepatic biliary ducts or evidence of leak. A 0.035 Stiff glide wire was then advanced through the existing catheter and into the Roux-en-Y limb. The skin sutures anchoring the biliary drainage catheter were cut, and the tube was removed, with moderate difficulty. A 10 French Flexima biliary catheter was then advanced over the wire and into the Roux-en-Y limb. The pigtail mechanism was deployed as the wire was withdrawn. Injection of 5 cc of Optiray contrast confirmed tube location within the Roux-en-Y limb.

ANESTHESIA/MEDICATIONS: Approximately 50 cc of Optiray contrast material was used. The patient received conscious sedation using Versed and Fentanyl, with continuous hemodynamic monitoring.

## **IMPRESSION:**

1. No evidence of biliary ductal dilatation or leak. Removal of existing percutaneous biliary drainage catheter.

2. Successful placement of 10 French Flexima biliary catheter. The tip is in the duodenum. (Over) [\*\*2110-5-14\*\*] 7:49 AM CATH CHEK/REMV Clip # [\*\*Clip Number (Radiology) 69246\*\*] Reason: Pt s/p liver transplant with existing Ttube. Cholangiogram f Contrast: CONRAY Amt: 30 FINAL REPORT (Cont) "[\*\*2110-4-9\*\*] 2:50 PM N-G TUBE PLACEMENT (W/ FLUORO); 79 UNRELATED PROCEDURE/SERVICE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 69242\*\*] Reason: pt a liver transplant recipient currently with clogged NGtub ICD9 code from order: V42.7 [\*\*Hospital 4\*\*] MEDICAL CONDITION: 52 year old man s/p liver transplant with failure to thrive **REASON FOR THIS EXAMINATION:** pt a liver transplant recipient currently with clogged NGtube. Unable to unclog aftr several attempts.

**FINAL REPORT** 

INDICATION: Liver transplant patient with failure to thrive, current post-

pyloric feeding tube is dysfunctional. Please replace.

FEEDING TUBE PLACEMENT: The patient's pre-existing feeding tube was removed.

Under continuous fluoroscopic guidance, a new 120cm [\*\*Location (un) 1275\*\*]-[\*\*Doctor First Name \*\*] feeding

tube was inserted into the left nare and advanced past the level of the pylorus. Injection of 10cc of water soluble contrast material showed the tip of the tube within a loop of small bowel. The patient tolerated the procedure well.

IMPRESSION: Successful replacement of a post-pyloric feeding tube.

"

"[\*\*2110-4-9\*\*] 3:54 PM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69243\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 150CC NONIONIC CONTRAST

Reason: pt s/p liver transplant with drain in place to drain leak in

Field of view: 36 Contrast: OPTIRAY Amt: 150CC

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant s/p hepatojejunostomy complicated by

bile leak. Drain no longer has an output

REASON FOR THIS EXAMINATION:

pt s/p liver transplant with drain in place to drain leak in liver. JP no

longer with drainage. Please check for fluid collections

\_\_\_\_\_

FINAL REPORT

INDICATION: S/P liver transplant S/P hepaticojejunostomy complicated by a bile

leak with JP drain. JP no longer draining, please assess for recurrent fluid collections.

TECHNIQUE: Helical axial images of the abdomen and pelvis were obtained with oral and intravenous contrast. 150 cc of Optiray contrast was administered.

Non-ionic contrast was used secondary to patient request.

COMPARISON: [\*\*2110-3-19\*\*] abdomen and pelvis CT.

ABDOMEN CT WITH IV CONTRAST: The lung bases are clear. A small amount of gas is present within the central biliary tree of the liver. There are no liver masses. There is a focal echogenic focus within the right lobe of the liver. A JP drain is seen lying along the medial aspect of the liver. A tiny amount of perihepatic fluid is seen at the medial inferior aspect of the liver. This amount of fluid is not significantly changed in the interval. There are no new fluid collections. The patient is S/P hepatojejunostomy. The pancreas is unremarkable. The spleen is enlarged.

There are massive splenic varices. The left renal vein is engorged. The adrenal glands are unremarkable. The right and left kidneys enhance and excrete contrast symmetrically. There is no hydronephrosis and no hydroureter. A nasojejunal feeding tube is present. The stomach, small bowel, and large bowel are unremarkable, without wall thickening or distention. There is no abdominal free fluid. The abdominal vasculature is normally opacified.

PELVIS CT WITH IV CONTRAST: The distal ureters, bladder, rectum, prostate, and pelvic loops of bowel are unremarkable. There is no abdominal free fluid and no abdominal lymphadenopathy.

The osseous structures reveal no suspicious lytic or sclerotic lesions.			
IMPRESSION:			
Stable residual tiny perihepatic fluid collection along the medial aspect of			
the liver. No new loculated collections. Unremarkable post-operative			
appearance of the liver.			
(Over)			
[**2110-4-9**] 3:54 PM			
CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST  Clip # [**Clip Number (Radiology) 69243**]			
CT 150CC NONIONIC CONTRAST			
Reason: pt s/p liver transplant with drain in place to drain leak in			
Field of view: 36 Contrast: OPTIRAY Amt: 150CC			
FINAL REPORT			
(Cont)			
п			
"[**2110-4-18**] 7:44 AM			
CATH CHEK/REMV Clip # [**Clip Number (Radiology) 69244**]			
Reason: pt s/p liver transplant with existing PTC drain. PTC with mi			
Contrast: OPTIRAY Amt: 20			
**************************************			
* [**Numeric Identifier 3571**] CHALNAGIOGRAPHY VIA EXISTING C 78 RELATED PROCEDURE DURING POSTOPER *			
* [**Numeric Identifier 3573**] TUBE CHOLANGIOGRAM *			
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# [\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with living related liver transplant complicated by donor bile duct necrosis and failed hepaticojej.

#### **REASON FOR THIS EXAMINATION:**

pt s/p liver transplant with existing PTC drain. PTC with minimal output and JP without output. Check for dilation of bile ducts, position of catheter, check for leaks.

\_\_\_\_\_

## FINAL REPORT

HISTORY: 53 year old man with living-related liver transplant complicated by common bile duct necrosis and hepaticojejunostomy. Patient had revision of hepaticojejunostomy in 02/[\*\*2110\*\*]. Patient has existing percutaneous transhepatic biliary drain (PTBD) in place with minimal output and [\*\*Location (un) 1732\*\*]-[\*\*Location (un) 1733\*\*] drain

without any output. Patient is here today for tube cholangiogram to check for dilatation of bile ducts, position of the catheter, and check for any leaks.

PHYSICIANS: This procedure was performed by Drs. [\*\*First Name (STitle) 32904\*\*] [\*\*Name (STitle) 2243\*\*] and

[\*\*Name5 (PTitle) 737\*\*] [\*\*Doctor Last Name \*\*] [\*\*Doctor Last Name 325\*\*] (the staff radiologist, who was present and supervising

throughout the procedure).

PROCEDURE/FINDINGS: The patient was placed supine on the angiography table and his abdomen was prepped and draped in the usual sterile fashion. Contrast was infused slowly by gravity drainage under fluoroscopic guidance via the existing biliary catheter, and cholangiograms were taken in several projections (PA and obliques).

Contrast was passing anteriorly into a collection. There was opacification of

non-dilated intrahepatic biliary ducts. There was good, rapid passage of

contrast into the small bowel through the anastomosis.

Compared to the prior study, there is improvement (reduction) in the size of

the leak and apperance of passage of contrast into the small bowel through the

hepaticojejunal anastomosis.

The tube was re-connected to its external bag drainage.

COMPLICATIONS: No immediate post-procedure complications were noted.

ANESTHESIA/MEDICATIONS: For conscious sedation, divided doses of Versed (1 mg

total) and fentanyl (50 microg total) were given intravenously under

continuous hemodynamic monitoring. Ionic contrast (Conray 60%): 20 ml. Patient

was already on antibiotics (including Unasyn).

IMPRESSION: As compared to the previous study, this tube cholangiogram

demonstrated persistence but improvement in the size of the bile leak.

(Over)

[\*\*2110-4-18\*\*] 7:44 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69244\*\*]

Reason: pt s/p liver transplant with existing PTC drain. PTC with mi

Contrast: OPTIRAY Amt: 20

FINAL REPORT

(Cont)

"[\*\*2110-4-18\*\*] 10:24 AM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69245\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 150CC NONIONIC CONTRAST

Reason: pt s/p liver transplant c/b leak at anastamosis site. JP in

ICD9 code from order: V42.7

Field of view: 37 Contrast: OPTIRAY Amt: 150

# [\*\*Hospital 4\*\*] MEDICAL CONDITION:

52 year old man s/p liver transplant s/p hepatojejunostomy complicated by bile leak. Drain no longer has an output

## **REASON FOR THIS EXAMINATION:**

pt s/p liver transplant c/b leak at anastamosis site. JP in place without drainage. Please assess for fluid collections or blockage of JP drain.

No contraindications for IV contrast

\_\_\_\_\_\_

## **FINAL REPORT**

INDICATION: S/P liver transplant and hepatojejunostomy, complicated by bile leak. Decreasing drain output. Evaluate for fluid collections.

TECHNIQUE: CT of the abdomen and pelvis were obtained after the administration of enteric and IV contrast. Comparison was made to the prior study performed [\*\*2110-4-9\*\*].

FINDINGS:

CT OF THE ABDOMEN WITH CONTRAST: There is a small focus of consolidation at the right lung base, which is new. The heart and pericardium appear unremarkable.

A post-pyloric feeding tube is in place, with the tip in the region of the ligament of Treitz. The [\*\*Location (un) 1732\*\*]-[\*\*Location (un) 1733\*\*] drainage catheter enters the skin in

the right lower quadrant, taking a course which terminates in the region of the gallbladder fossa. There is a radiolucent percutaneous biliary tube present entering the right lobe of the liver, with a radiopaque tip. There is a small amount of contrast within this tube.

A small amount of biliary air is present. As there may be a subtlely heterogeneous enhancement in segment 5 of the liver a tiny hypodense focus in this region is non-specific, and was more discretely seen on prior studies. There is splenomegaly, with massive splenic varices and a splenorenal shunt. The kidneys, adrenal glands, stomach, and small bowel appears unremarkable. There is a large amount of post-operative fat stranding in the right upper quadrant, worse in the remainder of the abdomen. No frank fluid collection is present, aside from the small sliver of fluid along the inferior aspect of the liver, which is much smaller than on the prior study. There is no abdominal lymphadenopathy evident.

CT OF THE PELVIS WITH CONTRAST: There is a large amount of stool within the rectum. A trace amount of pelvic free fluid is present. There is no pelvic lymphadenopathy, and the bladder and visualized portions of the ureters are within normal limits.

Examination of the osseous structures show regions of degenerative change of (Over)

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 69245\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 150CC NONIONIC CONTRAST

Reason: pt s/p liver transplant c/b leak at anastamosis site. JP in

ICD9 code from order: V42.7

Field of view: 37 Contrast: OPTIRAY Amt: 150

#### FINAL REPORT

(Cont)

the lower lumbar spine. No other osseous abnormalities are noted. A metallic

focus in the right mid to lower quadrant may represent a drop clip.

IMPRESSION: 1) No evidence of drainable fluid collection.

- 2) Trace amount of fluid at the inferior medial aspect of the liver, which has decreased significantly in size.
- 3) Splenomegaly and massive splenic varices.
- 4) Small focus of consolidation at the right lower lobe.

"[\*\*2110-7-31\*\*] 9:31 PM

CT HEAD W/ CONTRAST Clip # [\*\*Clip Number (Radiology) 69277\*\*]

Reason: bleed? mets?

Admitting Diagnosis: S/P LIVER TRANSPLANT; ALTERED MENTAL STATUS

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with HA, photophobia, s/p liver transplant for Hep C cirrhosis.

**REASON FOR THIS EXAMINATION:** 

bleed? mets?

No contraindications for IV contrast

FINAL REPORT

HEAD CT.

INDICATION: Headache and photophobia. Status post liver transplant for hep C

cirrhosis.

COMPARISON: None.

TECHNIQUE: Noncontrast head CT. Note, however, that the patient received

intravenous contrast three hours prior for a CT of the abdomen and pelvis.

FINDINGS: The exam is limited by patient motion. Allowing for this, there is

no definite evidence of intracranial hemorrhage, mass effect, shift of the

normally midline structures, or hydrocephalus. [\*\*Doctor Last Name \*\*]/white matter

differentiation is preserved. There is no sign of fracture or bone

destruction. The paranasal sinuses and the orbits are unremarkable.

IMPRESSION: No acute intracranial hemorrhage or mass effect. Exam slightly

limited by motion and the previously administered intravenous contrast.

"[\*\*2110-8-1\*\*] 4:59 PM

MR HEAD W & W/O CONTRAST; MR CONTRAST GADOLIN

Clip # [\*\*Clip Number (Radiology)

69334\*\*]

Reason: HA, MS CHANGES, PHOTOPHOBIA

Admitting Diagnosis: S/P LIVER TRANSPLANT; ALTERED MENTAL STATUS

### FINAL REPORT

CLINICAL INFORMATION: Patient with headache, mental status changes, and photophobia.

TECHNIQUE: T1 sagittal and FLAIR T2 susceptibility and diffusion axial images of the brain were obtained before gadolinium. T1 axial and coronal images are obtained following gadolinium.

FINDINGS: On diffusion weighted images, no evidence of restricted diffusion is seen to indicate acute infarct. There is no evidence of midline shift, mass effect or hydrocephalus. The ventricles and extraaxial spaces are normal in size. There are no focal signal abnormalities seen. Following gadolinium, no evidence abnormal parenchymal, vascular or meningeal enhancement seen.

IMPRESSION: Normal MRI of the brain with and without gadolinium. No evidence of acute infarct, mass effect, or enhancing lesion.

"[\*\*2110-7-31\*\*] 6:05 PM

CT ABD W&W/O C; CT PELVIS W/CONTRAST

Clip # [\*\*Clip Number (Radiology) 69276\*\*]

CT 150CC NONIONIC CONTRAST

Reason: ?Infection. ?Fungal. ?New abdominal abscess.

Admitting Diagnosis: S/P LIVER TRANSPLANT; ALTERED MENTAL STATUS

Contrast: OPTIRAY Amt: 150

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with hep c cirrhosis s/p liver transplant, now with MS changes after recent cholangitis.

**REASON FOR THIS EXAMINATION:** 

?Infection. ?Fungal. ?New abdominal abscess.

No contraindications for IV contrast

\_\_\_\_\_

FINAL REPORT

INDICATION: Status post liver transplant with mental status changes and recent cholangitis. Evaluate for abdominal abscess.

COMPARISON: [\*\*2110-6-28\*\*].

TECHNIQUE: Helically aquired contiguous axial images were obtained from the lung bases to pubic symphysis. Both pre and immediate post contrast images were obtained through the abdomen with delayed images of the abdomen and pelvis.

CONTRAST: Oral and 150 cc of IV Optiray were administered.

CT ABDOMEN W/O&W IV CONTRAST: There are post surgical changes seen in the transplanted liver including a JP drain and a transhepatic internal/external biliary stent. Some air is visualized in the surgical bed. There are no focal lesions visualized within the liver. The portal vein is patent and there is no evidence of intrahepatic biliary ductal dilatation. The kidneys, adrenals, proximal ureters, pancreas and the abdominal loops of small and large bowel appear unremarkable. There is stable splenomegaly along with perisplenic varices. There is no free fluid present. No mesenteric or retroperitoneal lymphadenopathy is identified.

CT PELVIS WITH IV CONTRAST: The urinary bladder, distal ureters, pelvic loops of small and large bowel appear unremarkable. The rectum, prostate and

seminal vesicles appear normal. There is no free air or free fluid. There is no pelvic or inguinal lymphadenopathy. Osseous structures do not exhibit any suspicious lytic or blastic lesions. **IMPRESSION:** 1) No evidence of abscess or fluid collection. 2) Post surgical changes seen within transplanted liver. 3) Stable splenomegaly with large varices. (Over) [\*\*2110-7-31\*\*] 6:05 PM CT ABD W&W/O C; CT PELVIS W/CONTRAST Clip # [\*\*Clip Number (Radiology) 69276\*\*] CT 150CC NONIONIC CONTRAST Reason: ?Infection. ?Fungal. ?New abdominal abscess. Admitting Diagnosis: S/P LIVER TRANSPLANT; ALTERED MENTAL STATUS Contrast: OPTIRAY Amt: 150 **FINAL REPORT** (Cont) "[\*\*2110-9-4\*\*] 8:08 PM CT ABD W&W/O C; CT PELVIS W&W/O C Clip # [\*\*Clip Number (Radiology) 69376\*\*] CT 150CC NONIONIC CONTRAST; CT RECONSTRUCTION

Reason: ?fluid collection

Admitting Diagnosis: ABDOMINAL PAIN

Field of view: 36 Contrast: OPTIRAY Amt: 150

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with hep c cirrhosis s/p liver transplant, with abdominal

pain

**REASON FOR THIS EXAMINATION:** 

?fluid collection

No contraindications for IV contrast

**FINAL REPORT** 

HISTORY: Status post liver transplant. Abdominal pain.

COMPARISON: [\*\*2110-7-31\*\*].

TECHNIQUE: Helically acquired contiguous axial images of the abdomen were obtained without contrast and then with 140 cc of intravenous Optiray in arterial and portal venous phases. Delayed images of the abdomen and pelvis were also obtained.

ABDOMEN CT WITH AND WITHOUT CONTRAST: There is minimal pleural effusion or pleural thickening at the left lung base. The transplant liver enhances uniformly. The portal, splenic, and superior mesenteric veins are patent. The celiac, common hepatic, superior mesenteric and inferior mesenteric arteries are patent. A transhepatic percutaneous biliary stent is again noted. There is a second percutaneous catheter entering the patient in the right lower quadrant, coursing superiorly and terminating in the liver hilum. The spleen is stable in size. Multiple varices and a markedly enlarged left renal vein are again noted. The pancreas, adrenal glands, and kidneys appear unremarkable.

PELVIS CT WITH INTRAVENOUS CONTRAST: There is contiguous wall thickening in the sigmoid and descending colon, which is consistent with colitis. Inflammatory, infectious, and ischemic etiologies should be considered. Specifically, if the patient has been on antibiotics, C. difficile colitis should be considered. There is no wall thickening in the transverse or ascending colon, which are distended with stool. The distal ileum is collapsed, with some fecalization of its contents (series 3B, image 182). The proximal small bowel is dilated and opacified with oral contrast. Oral contrast does not pass through to the collapsed distal small bowel. These findings are concerning for partial bowel obstruction, possibly secondary to the large amount of stool in the proximal colon. A follow-up CT scan may be helpful to assess progression of oral contrast.

There are multiple small foci of free air. The largest collection of free air is located adjacent to the distal jejunojejunal anastomosis (series 3B, image 159). There is an adjacent 2 cm fluid collection. There is also a small amount of fluid in the paracolic gutters, and a small-to-moderate amount of fluid in the deep pelvis. These findings are concerning for bowel (Over)

[\*\*2110-9-4\*\*] 8:08 PM

CT ABD W&W/O C; CT PELVIS W&W/O C

Clip # [\*\*Clip Number (Radiology) 69376\*\*]

CT 150CC NONIONIC CONTRAST; CT RECONSTRUCTION

Reason: ?fluid collection

Admitting Diagnosis: ABDOMINAL PAIN

Field of view: 36 Contrast: OPTIRAY Amt: 150

FINAL REPORT

(Cont)

perforation. However, according to Dr. [\*\*Last Name (STitle) 3482\*\*], the right lower quadrant catheter has been placed within the previous 24 hours, possibly explaining the presence of free air. Clinical correlation is recommended.

The bladder and prostate are unremarkable. The visualized osseous structures are grossly unremarkable.

The findings were discussed with Dr. [\*\*Last Name (STitle) 3482\*\*] at 9:45 PM on [\*\*2110-9-4\*\*].

IMPRESSION:

- Free intra-abdominal gas, which is concerning for bowel perforation, but could be secondary to recent catheter placement. Clinical correlation is recommended.
- 2. Colitis in the descending and sigmoid colon, which may be inflammatory, infectious, or ischemic. If the patient has been treated with antibiotics, C. difficile colitis should be considered.
- 3. Possible partial small bowel obstruction, which may be secondary to a large amount of stool in the proximal colon. A follow-up CT could be helpful for assessing progression of oral contrast.
- 4. Small amount of free fluid without evidence of an abscess.

"

CHEST (PORTABLE AP)

Clip # [\*\*Clip Number (Radiology) 69378\*\*]

Reason: s/p central line, NG tube placement

Admitting Diagnosis: ABDOMINAL PAIN

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man s/p ex lap

**REASON FOR THIS EXAMINATION:** 

s/p central line, NG tube placement

**FINAL REPORT** 

INDICATION: Evaluate central line and NG tube placement.

PORTABLE AP CHEST X-RAY: Comparison made to study from [\*\*2110-3-20\*\*]. A right IJ central venous line is seen, with the tip visualized in the right atrium. An NG tube is visualized, with the tip in the gastric body. No pneumothorax is seen. No infiltrate, opacities, or pleural effusions are noted. A drain is visualized overlying the right upper quadrant. The heart and mediastinal contours are unchanged from the previous exam.

IMPRESSION: Right IJ central venous line is seen, in the right atrium. Recommend withdraw by 3-4 cm. NG tube is well visualized in the gastric body. No evidence of pneumothorax. Notes conveyed to covering house doctor.

"[\*\*2110-9-4\*\*] 7:39 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69375\*\*]

Reason: Pt s/p liver transplant with existing [\*\*First Name8 (NamePattern2) 1732\*\*] [\*\*Last Name

(NamePattern1) 1733\*\*] drain. T

Contrast: OPTIRAY Amt: 50

\* [\*\*Numeric Identifier 3799\*\*] CHANGE PERC BILIARY DRAINAGE C [\*\*Numeric Identifier 3887\*\*] **ABSCESS CHG & REINSERT** \* -59 DISTINCT PROCEDURAL SERVICE [\*\*Numeric Identifier 3571\*\*] CHALNAGIOGRAPHY VIA EXISTING C \* \* -51 MULTI-PROCEDURE SAME DAY [\*\*Numeric Identifier 3570\*\*] ABSCESSOGRAM \* -59 DISTINCT PROCEDURAL SERVICE [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CON \* \* [\*\*Numeric Identifier 2242\*\*] CHANGE PERC TUBE OR CATH W/CON -59 DISTINCT PROCEDURAL SERVICE [\*\*Numeric Identifier 3572\*\*] \* [\*\*Numeric Identifier 3573\*\*] TUBE CHOLANGIOGRAM FISTULOGRAM/SINOGRAM \* CATHETER, DRAINAGE CATHETER, DRAINAGE \* C1769 GUID WIRES INCL INF C1769 GUID WIRES INCL INF \* C1894 INT.SHTH NOT/GUID,EP,NONLASER C1894 INT.SHTH NOT/GUID,EP,NONLASER \* [\*\*Hospital 4\*\*] MEDICAL CONDITION: 53 year old man with liver transplant with existing [\*\*First Name8 (NamePattern2) 1732\*\*] [\*\*Last Name (NamePattern1) 1733\*\*] drain REASON FOR THIS EXAMINATION:

Pt s/p liver transplant with existing [\*\*First Name8 (NamePattern2) 1732\*\*] [\*\*Last Name (NamePattern1) 1733\*\*] drain. Tube to be downsized

and replaced with pigtail catheter by Dr. [\*\*Last Name (STitle) 63\*\*].

# **FINAL REPORT**

HISTORY: Liver transplant, currently with right upper quadrant J-P drain and transhepatic catheter, for J-P drain downsizing in anticipation of eventual removal.

TECHNIQUE/FINDINGS: After informed consent was obtained, both the patient's

transhepatic biliary catheter as well as the J-P drain exit site were prepped and draped in sterile fashion.

Initial injection of the J-P drain demonstrated prompt antegrade flow into both a decompressed biliary tree as well as jejunum at approximately the hepaticojejunal anastomosis. Hence, a persistent leak, although previous injections of the transhepatic catheter, demonstrated no evidence of extravasation at the level of the anastomosis.

A stiff glide wire was advanced through the J-P drain and the J-P drain removed. Given the course of the J-P drain, no sheath was long enough to reach the original final position of the drain. Therefore, a 5-French multiside hole catheter was advanced over the wire to the level of the hepaticojejunostomy and injection performed over the wire. This revealed a contained tract from the hepaticojejunal anastomosis and along the previous J-P tract for approximately 10 cm. Catheter withdrawal over a wire with repeated injection demonstrated the tract to terminate after about 10 cm with free contrast flowing into the abdomen.

Hence, a tract approximately 10 cm in length, which is contained, does exist where the previously J-P drain was placed. Because of the route of the original J-P drain, no drain of sufficient length to reach the hepaticojejunal anastomosis is available (biliary drain, nephrostomy tubes and multi-purpose drains all 35 cm or less, 65 cm required to reach the hepaticojejunal anastomosis through the previous J-P drain tract).

(Over)

[\*\*2110-9-4\*\*] 7:39 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 69375\*\*]

Reason: Pt s/p liver transplant with existing [\*\*First Name8 (NamePattern2) 1732\*\*] [\*\*Last Name

(NamePattern1) 1733\*\*] drain. T

Contrast: OPTIRAY Amt: 50

### FINAL REPORT

(Cont)

Therefore, a 7-French Grohlman catheter was used, additional multiple side holes were placed and the catheter cut to appropriate size with an O-ring placed. This was sutured in place with 0-silk. The catheter tip does form a small pigtail and this was placed approximately 2 cm distal to the hepaticojejunal anastomosis, i.e., withdrawn approximately 2 cm from the original J-P drain tip. Injection confirmed position and confirmed no evidence of extravasation.

A transhepataic cholangiogram was also performed, again demonstrating no evidence of extravasation despite the known presence of a persistent leak. As this catheter has not been changed since [\*\*4-20\*\*], the catheter was changed uneventfully over [\*\*Initials (NamePattern4) \*\*] [\*\*Last Name (NamePattern4) 2244\*\*] wire for a similar 10-French biliary drainage catheter.

### IMPRESSION:

1. J-P drain injection demonstrating persistent leak at approximately the hepaticojejunal anastomosis with opacification of both jejunum and a decompressed biliary tree. This is associated with a J-P drain tract of approximately 10 cm in length from the hepaticojejunal anastomosis until there is free extravasation into the abdomen. J-P drain was removed and a tailored 7-French catheter replaced approximately 8 cm within the tract,

distal to the hepaticojejunal anastomosis.

- 2. Due to the route of the original J-P drain, no larger drain or catheter could be placed as the tract was over 65 cm in length.
- 3. Contained tract for 10 cm does make this amenable to an attempt at eventual tract embolization.
- 4. Transhepatic cholangiogram demonstrating a nondilated biliary tree with free flow into the jejunum via the hepaticojejunal anastomosis. Again, no extravasation was seen despite the above findings. Catheter exchanged for a similar 10-French biliary drain uneventfully.

FINAL REPORT

?rising bili

HISTORY: This is a patient status post liver transplant with recent rising LFTs and bilirubin.

RADIOLOGISTS: The procedure was performed by Drs. [\*\*First Name (STitle) 766\*\*] [\*\*Name (STitle) 192\*\*] and [\*\*First Name8 (NamePattern2) 413\*\*]

[\*\*Doctor Last Name 7\*\*]. Dr. [\*\*Last Name (STitle) 7\*\*], the attending radiologist, was present and supervising

throughout the procedure.

TECHNIQUE: The skin and the biliary tube were prepped and draped in standard sterile fashion. A scout image was obtained. A total of 25 cc of nonionic contrast material was injected and different fluoroscopic projections were obtained.

FINDINGS: The biliary drain is in place and in good position, unchanged since the [\*\*2110-9-4\*\*] tube cholangiogram. The pigtail loop is in the jejunum. There is an abnormal, poor appearance of the intrahepatic biliary tree which is unchanged since [\*\*2110-9-4\*\*].

COMPLICATONS: There were no immediate complications.

IMPRESSION: Unchanged tube cholangingram in comparison to the one performed on [\*\*2110-9-4\*\*].

"[\*\*2110-9-5\*\*] 4:30 PM

CHEST (PORTABLE AP)

Clip # [\*\*Clip Number (Radiology) 69379\*\*]

Reason: repositioning of central line (RIJ)

Admitting Diagnosis: ABDOMINAL PAIN

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man s/p ex lap

**REASON FOR THIS EXAMINATION:** 

repositioning of central line (RIJ)

**FINAL REPORT** 

INDICATION: Repositioning of a right-sided central line.

PORTABLE AP CHEST X-RAY: Comparison made to previous study of the same day approximately 2 hours prior. A right-sided IJ central venous line is again seen, with the tip now positioned in the distal SVC. The NG tube is again visualized and unchanged. A drain is seen overlying the right upper quadrant. There has been no interval change in the appearance of the lung fields bilaterally. Heart size and mediastinal contours are unchanged from previous exam.

IMPRESSION: Interval repositioning of the right IJ central venous line, with the tip now placed in the distal SVC. No other interval change.

"[\*\*2110-9-5\*\*] 3:36 AM

CT ABDOMEN W/O CONTRAST; CT PELVIS W/O CONTRAST 69377\*\*]

Clip # [\*\*Clip Number (Radiology)

Reason: pt s/p liver transplant with abdominal pain. Assess for caus

Admitting Diagnosis: ABDOMINAL PAIN

ICD9 code from order: V42.7;

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with hep c cirrhosis s/p liver transplant, with abdominal pain

**REASON FOR THIS EXAMINATION:** 

pt s/p liver transplant with abdominal pain. Assess for cause of this pain including fluid collections

No contraindications for IV contrast

## **FINAL REPORT**

INDICATION: Hep C cirrhosis status post liver transplant. Abdominal pain. Prior CT of [\*\*2110-9-4\*\*], of six hours earlier suggested possible small bowel obstruction. This is a followup scan for evaluation of contrast throughput.

TECHNIQUE: Noncontrast CT of the abdomen and pelvis was performed.

CT OF THE ABDOMEN WITHOUT CONTRAST: Comparison to the previous exam reveals only a minimal passage of contrast, which still lies within mid- to distal small bowel. Compared to the prior exam, there is increase in the amount of free fluid within the abdomen and pelvis. Colonic wall thickening is still appreciated. No leak of oral contrast is seen. Loops of small bowel to the point of contrast termination are still dilated.

CT OF THE PELVIS WITHOUT CONTRAST: There is a mild increase in pelvic free fluid since the previous exam.

IMPRESSION: Only little movement of contrast within the small bowel, which still terminates at a point within the mid-to-distal small bowel. As there was no evidence of small bowel obstruction on recently performed interventional study of [\*\*2110-9-4\*\*], (when administered contrast was seen to progress through the small bowel without difficulty) the findings likely relate to an ileus from chemical peritonitis. Additionally, the findings of bowel wall thickening within the colon may relate to hypoproteinemia, or also could be secondary to chemical peritonitis from biliary leak.

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with liver transplant with existing Ttube and needing tube

cholangiogram and? downsizing tube

### **REASON FOR THIS EXAMINATION:**

Pt. is one year s/p liver transplant. Pt. has a PTC tube in situ. Dr. [\*\*Last Name (STitle) \*\*] would like pt. to have a tube cholangiogram- Dr. [\*\*Last Name (STitle) \*\*] would like to be paged during procedure as he wants the tube downsized if possible. [\*\*Doctor Last Name \*\*] beeper no. is 3-9288.

\_\_\_\_\_

### **FINAL REPORT**

HISTORY: Patient is one year status post liver transplant, with BDC tube in situ, for cholangiogram, and possible downsizing of tube.

# PROCEDURE/FINDINGS:

The procedure was performed by Dr. [\*\*First Name8 (NamePattern2) 4608\*\*] [\*\*Name (STitle) 4609\*\*], and Dr. [\*\*First Name4 (NamePattern1) \*\*] [\*\*Last Name (NamePattern1) 63\*\*] with Dr. [\*\*Last Name (STitle) 63\*\*], attending radiologist, supervising the procedure. After explaining the risks and benefits of the procedure and informed consent was obtained, the patient was placed supine on the angiographic table, and the right upper abdomen around the insertion site of the existing tube prepped and draped in standard sterile fashion. The skin and subcutaneous tissues surrounding the catheter were anesthetized with 8 cc of 1% lidocaine. A fluoroscopic spot image was obtained demonstrating the catheter tip to be within the jejunum. A tube cholangiogram was then performed using 10 cc of hand injection contrast which demonstrated opacification of the right hepatic duct, with free flow into the jejunum. No intrahepatic biliary dictal dilatation is seen. No leakage of contrast was seen. The catheter was then cut releasing the pigtail. An 0.035 [\*\*Last Name (un) 414\*\*] wire was advanced through the existing catheter into the jejunum under fluoroscopy, and the catheter was removed. An 8 french bright tipped sheath was advanced over the wire, and the inner dilator removed. Contrast was hand injected through the sheath which again

demonstrated normal right hepatic system, with no evidence of dilatation. The bright tipped sheath was removed and an 8 french biliary catheter was advanced over the guidewire into the jejunum. The guidewire was removed. The pigtail was formed and lodged in the jejunum beyond the anastomosis. Repeat cholangiography via the new 8 french biliary drainage catheter confirmed position of sideholes throughout the biliary tree and into the jejunal loop. The contrast was aspirated and the catheter was flushed with 10 cc of normal saline. The catheter was capped, and secured to the skin using 0 silk suture. A stat-lock was applied, followed by a dry sterile gauze dressing.

COMPLICATIONS: None.

(Over)

[\*\*2110-12-2\*\*] 7:38 AM

CATH CHEK/REMV

Clip # [\*\*Clip Number (Radiology) 68772\*\*]

Reason: Pt. is one year s/p liver transplant. Pt. has a PTC tube in

Contrast: OPTIRAY Amt: 50

# **FINAL REPORT**

(Cont)

IMPRESSION:

Tube cholangiography performed via existing 10 french biliary drainage catheter demonstrating no intrahepatic biliary ductal dilatation, no leakage. Catheter downsized to 8 french internal/external biliary drainage catheter, capped. These findings were discussed with Dr. [\*\*Last Name (STitle) \*\*] at the time of examination.

"[\*\*2110-10-16\*\*] 11:41 AM

MRI ABDOMEN W/O & W/CONTRAST; MR CONTRAST GADOLIN

Clip # [\*\*Clip Number

(Radiology) 68769\*\*]

MR RECONSTRUCTION IMAGING

Reason: Pt s/p living donor liver transplatn 9 mo ago with ad ct las

Contrast: MAGNEVIST Amt: 17

### FINAL ADDENDUM

ADDENDUM: In the above dictation please note that the pancreatic duct had been misnamed. The duct of Wirsung is dilated with stenosis at its ampulla and the duct of the pancreatic body continues into the duct of Santorini, which is normal in caliber.

[\*\*2110-10-16\*\*] 11:41 AM

MRI ABDOMEN W/O & W/CONTRAST; MR CONTRAST GADOLIN (Radiology) 68769\*\*]

Clip # [\*\*Clip Number

MR RECONSTRUCTION IMAGING

Reason: Pt s/p living donor liver transplatn 9 mo ago with ad ct las

Contrast: MAGNEVIST Amt: 17

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with questionalbe protal vein thrombosis

REASON FOR THIS EXAMINATION:

Pt s/p living donor liver transplatn 9 mo ago with ad ct last week showing question of portal vein thrombosis. Pt needs MRV/MRA to assess this.

\_\_\_\_\_

FINAL REPORT

INDICATION: 53-year-old man with questionable portal vein thrombosis.

Status-post living donor liver transplant 9 months ago with question of portal vein thrombosis.

TECHNIQUE: Multiplanar MRI of the abdomen was performed utilizing T1- and T2-weighted images both prior to, and following uneventful intravenous administration of gadolinium. Additional multiplanar reconstruction was performed on a separate workstation.

COMPARISON STUDIES: Multiple prior CT scans, including that from [\*\*2110-9-29\*\*].

FINDINGS: The transplant liver is unremarkable in appearance, except for a scar at mid portion which is related to the prior biliary drainage tube. No focal hepatic lesions are identified. The gallbladder is absent.

The spleen is markedly enlarged, and there are numerous large varices at the splenic hilum, and near the left kidney. The left renal vein is markedly enlarged with suggestion of an enlarged hemi-azygos inferior to the left kidney. These appearances are unchanged when compared with previous CT studies.

The splenic vein and superior mesenteric vein in its visualized portions are patent. The portal confluence is patent. There is attenuation of the portal vein at its anastomotic site at the porta hepatis. Within the liver, the portal vein is patent.

There is a  $1.3 \times 1.2$  cm septated cystic lesion within the uncinate process of the pancreas, which does not definitely communicate with the pancreatic duct. The differential diagnosis for this lesion includes an IPMT, a microcystic tumor, or a sequela of prior pancreatitis. Follow up imaging in 4 months is

recommended to confirm its stability. The pancreatic duct is normal in caliber within the pancreatic body. This duct is seen to continue into the duct of Wirsung which is normal in caliber. There is a dilated duct of Santorini, measuring 7 mm with thickening of soft tissue at its ampulla. These appearances may be a result of pancreas divisum with stenosis of the ampulla of the duct of Santorini. There is suggestion of another 5-6 mm cystic lesion within the junction of the pancreatic body and tail which is not completely visualized on this study, and may be additionally evaluated at the time of the follow up imaging for the pancreas. The common bile duct is normal in caliber.

(Over)

[\*\*2110-10-16\*\*] 11:41 AM

MRI ABDOMEN W/O & W/CONTRAST; MR CONTRAST GADOLIN (Radiology) 68769\*\*]

Clip # [\*\*Clip Number

MR RECONSTRUCTION IMAGING

Reason: Pt s/p living donor liver transplatn 9 mo ago with ad ct las

Contrast: MAGNEVIST Amt: 17

#### FINAL REPORT

(Cont)

There is mild diffuse thickening of the bowel wall, and a minimal amount of free fluid within the abdomen which may be related to anarsarca. There is no significant lymphadenopathy.

Multiplanar reconstructions were helpful in delineating the above findings.

**IMPRESSION** 

- Attenuation of the main portal vein at its anastomosis at the porta hepatis with patent portal confluence and portal branches within the liver.
- Suggestion of pancreas divisum with dilated duct of Santorini and thickening of its ampulla. An ERCP may be helpful for further evaluation of this finding.
- Two (2) cystic lesions within the pancreas. The differential diagnosis
  includes IPMT, a cystic pancreatic tumor, or sequela of
  pancreatitis. Follow up MRCP in 4 months is recommended to assess its
  stability.
- 4. Splenomegaly and prominent splenorenal varices, consistent with the patient's prior history of portal hypertension.
- 5. Anasarca.

"[\*\*2110-12-5\*\*] 11:53 AM

BX-NEEDLE LIVER BY RADIOLOGIST; 79 UNRELATED PROCEDURE/SERVICE DURING POSTOPERATIVE PERIODClip # [\*\*Telephone/Fax (1) 68773\*\*]

GUIDANCE/LOCALIZATION FOR NEEDLE BIOPSY US (S&I)

Reason: 53 yo s/o living related liver transplant in [\*\*12-19\*\*], with ris

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man s/p liver tx with rising lfts.

**REASON FOR THIS EXAMINATION:** 

53 yo s/o living related liver transplant in [\*\*12-19\*\*], with rising lfts. needs us

guided liver biopsy per dr [\*\*Last Name (STitle) \*\*].

**FINAL REPORT** 

INDICATION: Rising LFTs.

TECHNIQUE: After the risks and benefits of the procedure were explained to the patient, written informed consent was obtained. Preprocedure timeout information was obtained, confirming the patient's identity, and the nature of

the procedure.

Using local anesthesia, sterile technique, and ultrasound guidance, an 18-

gauge core biopsy sample was obtained from the right lobe of the transplant

liver. The sample was given to Dr. [\*\*Last Name (STitle) 31540\*\*].

IMPRESSION:

Uneventful core biopsy of transplant liver.

Dr. [\*\*Last Name (STitle) 1267\*\*] was present during the procedure.

"

"[\*\*2110-6-13\*\*] 1:57 AM

CT ABD W&W/O C; CT PELVIS W&W/O C

Clip # [\*\*Clip Number (Radiology) 69271\*\*]

CT 150CC NONIONIC CONTRAST

Reason: please do arterial and venous phase and squirt contrast into

Admitting Diagnosis: ABDOMINAL PAIN-FEVER

Field of view: 37 Contrast: OPTIRAY Amt: 150

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with fevers and abdominal pain s/p OLTx c/b biliary leak

**REASON FOR THIS EXAMINATION:** 

please do arterial and venous phase and squirt contrast into jp bulb to see if

cavity fills

No contraindications for IV contrast

**FINAL REPORT** 

INDICATION: 53 year old man status post liver transplant complicated by

biliary leak, who presents with liver and abdominal pain.

COMPARISON: [\*\*2110-4-18\*\*].

, \_\_\_\_,

TECHNIQUE: Helically acquired contiguous axial images of the abdomen were obtained without contrast and with intravenous Optiray in arterial and portal venous phases. Images of the pelvis were also obtained in the portal venous

phase. Delayed images of the abdomen were then obtained.

ABDOMEN CT WITH AND WITHOUT CONTRAST: There is minimal atelectasis at the

visualized lung bases. There is a biliary stent within the liver transplant.

There is a JP drain terminating at the liver hilum. There is a linear low

density tract in the liver, likely secondary to a prior catheter. Otherwise,

there are no focal liver lesions. There is no intrahepatic biliary

dilatation. The main hepatic artery is patent. The portal vein and its

branches appear patent. However, there is relative narrowing of the portal

vein just prior to its bifurcation, which is unchanged since the prior study.

There is a large splenorenal shunt and perisplenic varices. The spleen is

enlarged, measuring 16 cm. There are no perihepatic or other fluid collections. There is no evidence of an abscess. There is air in the

surgical bed, likely secondary to the JP drain and biliary stent.

The pancreas, adrenal glands, kidneys, small bowel and colon appear

unremarkable.

PELVIS CT WITH INTRAVENOUS CONTRAST: The bladder, prostate, seminal vesicles

and rectum appear unremarkable. There is no free fluid. There is no evidence

of an abscess.

BONE WINDOWS: The visualized osseous structures are grossly unremarkable.

**IMPRESSION:** 

1. No abscess or fluid collection.

2. Stable appearance of a relative narrowing at the portal vein origin just

prior to its bifurcation. Large splenorenal shunt and perisplenic varices.

(Over)

[\*\*2110-6-13\*\*] 1:57 AM

CT ABD W&W/O C; CT PELVIS W&W/O C

Clip # [\*\*Clip Number (Radiology) 69271\*\*]

CT 150CC NONIONIC CONTRAST

Reason: please do arterial and venous phase and squirt contrast into

Admitting Diagnosis: ABDOMINAL PAIN-FEVER

Field of view: 37 Contrast: OPTIRAY Amt: 150

**FINAL REPORT** 

(Cont)

ADDENDUM:

There was subcutaneous infiltration of intravenous Optiray at the end of the

infusion. The patient was examined by Dr. [\*\*First Name4 (NamePattern1) 450\*\*] [\*\*Last Name (NamePattern1) \*\*]. A cold compress was

immediately applied to the infiltration site, according the contrast

infiltration policy. The patient's floor nurse was immediately notified. The

intravenous line was removed. As less than 30 cc of Optiray were infiltrated,

no further action was taken. Dr. [\*\*Last Name (STitle) 69272\*\*] was also notified and provided with a

copy of the contrast infiltration policy. It was recommended to apply cold

compresses for the first two hours following infiltration, and to apply heat

subsequently.

"[\*\*2110-10-17\*\*] 8:04 PM

CHEST (PA & LAT) Clip # [\*\*Clip Number (Radiology) 68829\*\*]

Reason: ? pneumonia

Admitting Diagnosis: S/P LIVER TRANSPLANT-FEVER-FLUID COLLECTION

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with fevers

**REASON FOR THIS EXAMINATION:** 

? pneumonia

**FINAL REPORT** 

INDICATIONS: Fever.

PA AND LATERAL CHEST: Comparison is made to the prior study from [\*\*2110-9-10\*\*].

FINDINGS: There is considerable interval improvement in aeration in the left lung base with minimal residual parenchymal density here. There is no evidence of new air space infiltrate. There is no evidence of pleural effusion. Cardiac and mediastinal contours appear within normal limits. A drain overlies the right upper quadrant of the abdomen.

IMPRESSION: Significant improvement in aeration left lung base, with no new air space infiltrate identified.

"[\*\*2110-10-20\*\*] 2:32 PM

CT ABDOMEN W/O CONTRAST; -59 DISTINCT PROCEDURAL SERVICE Clip # [\*\*Clip Number (Radiology) 68771\*\*]

CT PELVIS W/O CONTRAST; -59 DISTINCT PROCEDURAL SERVICE

CT FINE NEEDLE ASP; CT GUIDED NEEDLE PLACTMENT

Reason: ? culture?

Admitting Diagnosis: S/P LIVER TRANSPLANT-FEVER-FLUID COLLECTION

\_\_\_\_\_

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with L abdominal fluid collection seen on [\*\*10-20\*\*]/CT. Please needle-drain and send for gram stain, cultures, sensitivies, amylase/lipase REASON FOR THIS EXAMINATION:

? culture?

No contraindications for IV contrast

FINAL REPORT

INDICATION: Small left peritoneal fluid collection for aspiration.

CT LOCALIZATION: Non contrast enhanced images of the abdomen were obtained and redemonstrate a small focal fluid collection in the left lower quadrant.

CT GUDANCE: CT fluoroscopy was used throughout the procedure to document adequate needle positioning.

CT ASPIRATION: After a pre- procedure time- out to confirm the identity of the patient and the procedure which he has to undergo informed consent was obtained. The patient was placed in a supine position and limited axial CT images were obtained to delineate the small fluid collection to be aspirated. The skin was prepped and draped in the usual sterile fashion and 1% Lidocaine was used for local anesthesia. Under direct CT guidance 1.5 cc of clear yellow fluid was aspirated by a 20 ga needle from the left-sided peritoneal fluid collection. The specimen was sent for culture. The patient tolerated the procedure well and there were no immediate complications.

Dr. [\*\*Last Name (STitle) 979\*\*], attending radiologist, was present and supervised the entire procedure.

IMPRESSION: Technically successful aspiration of small amount of fluid from a small peritoneal fluid collection.

"[\*\*2110-10-20\*\*] 12:09 PM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST 68770\*\*]

Clip # [\*\*Clip Number (Radiology)

CT 150CC NONIONIC CONTRAST

Reason: r/o abscess

Admitting Diagnosis: S/P LIVER TRANSPLANT-FEVER-FLUID COLLECTION

Field of view: 38 Contrast: OPTIRAY Amt: 150

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with hep c cirrhosis s/p liver transplant c fevers

**REASON FOR THIS EXAMINATION:** 

r/o abscess

No contraindications for IV contrast

**FINAL REPORT** 

HISTORY: Hepatitis C cirrhosis status post liver transplant with fevers.

Assess for abscess.

COMPARISON: [\*\*2110-9-29\*\*]

TECHNIQUE: Contrast enhanced CT of the abdomen and pelvis.

CONTRAST: 150 cc of Optiray secondary to debility.

CT OF THE ABDOMEN WITH IV CONTRAST: There is atelectasis at the left lung base. There is no effusion. The patient has an internal/external biliary drain in the transplanted liver with pig-tail coiled in the bowel. There is persistent splenomegaly and large collaterals, including splenorenal shunt, that are well opacified with contrast. The pancreas, adrenal glands are unremarkable and the aorta is of normal caliber. The large bowel is underdistended with areas of equivocal wall thickening in the sigmoid and hepatic flexure regions. These are of undetermined significance.

CT OF THE PELVIS WITH IV CONTRAST: In the left abdomen superficially there is

a 2.5 x 3.0 cm enhancing fluid collection. There is a small amount of ascites

in addition distributed throughout the abdomen, which is decreased in degree

since the prior study. There is no free air. The bladder is unremarkable.

The bones reveal no suspicious findings.

IMPRESSION: 1) 2.5 x 3 cm enhancing fluid collection in left mid abdomen.

This is too small to place a pig-tail catheter in, but would be amenable to CT

guided aspiration.

2) Continued small amount of ascites with splenomegaly and large collateral

vessels.

3) Colon underdistended with contrast material with equivocal areas of wall

thickening at the hepatic flexure and sigmoid colon. Correlation with

symptoms of colitis suggested. These areas looked unremarkable on prior study

from 3 weeks.

(Over)

[\*\*2110-10-20\*\*] 12:09 PM

CT ABDOMEN W/CONTRAST; CT PELVIS W/CONTRAST

Clip # [\*\*Clip Number (Radiology)

68770\*\*]

CT 150CC NONIONIC CONTRAST

Reason: r/o abscess

Admitting Diagnosis: S/P LIVER TRANSPLANT-FEVER-FLUID COLLECTION

Field of view: 38 Contrast: OPTIRAY Amt: 150

**FINAL REPORT** 

(Cont)

"[\*\*2110-6-12\*\*] 7:21 PM

CHEST (PA & LAT)

Clip # [\*\*Clip Number (Radiology) 69270\*\*]

Reason: ?fevers

Admitting Diagnosis: ABDOMINAL PAIN-FEVER

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man admitted with fevers and abdominal pain s/p OLTx

**REASON FOR THIS EXAMINATION:** 

?fevers

FINAL REPORT

INDICATION: 53 y/o post liver transplant with fever.

PA & LATERAL RADIOGRAPH. Comparison [\*\*2110-3-21\*\*].

The cardiac and mediastinal contours are normal. Lungs are clear with no effusion, consolidation, pneumothorax, or evidence of congestive heart failure. Previously seen NG tube and right IJ central venous catheter have been removed. There is a drain in the right upper quadrant. The osseous structures are unremarkable.

IMPRESSION: No pneumonia.

"[\*\*2110-6-3\*\*] 9:11 AM

BX-NEEDLE LIVER BY RADIOLOGIST; GUIDANCE/LOCALIZATION FOR NEEDLE BIOPSY US (S&I)Clip # [\*\*Clip Number (Radiology) 69269\*\*]

Reason: pt s/p liver transplant (with recurrent Hep C)- transplant c

[\*\*Hospital 4\*\*] MEDICAL CONDITION:

53 year old man with Hep C s/p liver transplant c/b rejection

**REASON FOR THIS EXAMINATION:** 

pt s/p liver transplant (with recurrent Hep C)- transplant complicated with

rejection. Biopsy to check for Hep C or recurrence of rejection

\_\_\_\_\_\_

FINAL REPORT

INDICATIONS: 53 y/o male with hepatitis C. Status post liver transplant.

ULTRASOUND GUIDED LIVER BIOPSY: Informed consent was obtained including risks such as bleeding and infection as well as benefits and alternatives. The patient desired the procedure and signed written consent. After ideal approach was identified with ultrasound, the patient was prepped and draped in the usual sterile fashion and the skin overlying the approach infiltrated with 1% lidocaine. Utilizing ultrasound guidance an 18 gauge monopty device was advanced under ultrasound observation into the liver parenchyma and a single core obtained. The patient tolerated the procedure well and there were no immediate complications.

IMPRESSION:

1. Successful percutaneous 18 gauge core liver biopsy.

Dr. [\*\*First Name (STitle) 547\*\*] was present and involved throughout the procedure.

"[\*\*2110-1-20\*\*] 4:16 PM

CT GUIDANCE DRAINAGE; CT LOC DRAINAGE

Clip # [\*\*Clip Number (Radiology) 69064\*\*]

CT FINE NEEDLE ASP; CT HEPATIC DRAINAGE

Reason: LARGE SUBSCAPULAR FLUID COLLECTION

Admitting Diagnosis: S/P LIVER TRANSPLANT; R/O REJECTION

FINAL REPORT

HISTORY: Subhepatic fluid collection which communicates with the patient's

biliary system as demonstrated on recent injection of his PTBD catheter.

FINDINGS:

The procedure was deemed necessary on an emergent basis by the clinical team

and a note has been written in the patient's chart to this effect. The

patient was placed in the supine position on the CT table and axial CT images

of the abdomen again demonstrate a subhepatic fluid collection which now

contains contrast from the recent injection of the PTBD catheter. A spot was

marked on the right upper quadrant overlying the patient's collection. The

region was then prepped and draped in the standard sterile fashion.

Subsequently under direct CT guidance, a 19 gauge needle was advanced into

this collection. A 12 French Flexima locking loop catheter was then advanced

under CT guidance into the collection and a total of 350 cc of a combination

of bilious and bloody fluid was aspirated. The position of the catheter was

confirmed by CT and a locking loop was formed.

A specimen was sent to the lab for interpretation.

The patient tolerated the procedure well without immediate complication and

left the department in satisfactory position.

The entire procedure was performed with and directly supervised by Dr. [\*\*First Name (STitle) 650\*\*]

[\*\*Name (STitle) 651\*\*].

ANESTHESIA: Versed and fentanyl.	
IMPRESSION:	
Successful CT guided placement of a locking loop pigtail catheter into the	
patient's subhepatic fluid collection.	
II	
"[**2110-1-20**] 4:33 PM	
CATH CHEK/REMV	Clip # [**Clip Number (Radiology) 69104**]
Reason: RT FLANK PAIN	
Admitting Diagnosis: S/P LIVER TRANSPLANT;R/O REJECTION	
Contrast: CONRAY Amt: 30	
******* CPT	Codes *********************
* [**Numeric Identifier 3571**] CHALNAGIOGRAPHY VIA EXISTING C [**Numeric Identifier 3573**] TUBE CHOLANGIOGRAM *	
**********	***********
FINAL REPORT (REVISED)	
INDICATION: 52 y/o gentleman status post liver transplant with persistent	
bile leak. Presents for evaluation of source of leak.	
Physicians: Tham and [**Doctor Last Name 7 supervising	***], with the Dr. [**Last Name (STitle) 7**] present and

PROCEDURE: Patient's abdomen was prepped and draped in sterile fashion. Tube cholangiogram through patient's existing PTBD demonstrated a biliary leak

through peripheral medial duct as previously seen on prior studies. This filled prior fluid collection before passing inferiorly and laterally into subhepatic space. The patient's t-tube was then injected lightly with no evidence of extravasation from the common bile duct. The patient tolerated the procedure well and there were no complications.

Impression: PTBD tube cholangiogram confirming previously seen biliary leak through medial peripheral duct draining into fluid collection before passing into subhepatic space. T-tube cholangiogram with no evidence of leak from CBD.

"Resp Care,

Pt. admitted from OR intubated #7 ET taped at 22@lip. See carevue for vent settings and changes, weaning Fio2 as tol.

"8p-7a; Full assessment in flow sheet.

Mr. [\*\*Known firstname \*\*] [\*\*Known lastname 9891\*\*], 52 yrs old pt of Dr. [\*\*Last Name (STitle) 1471\*\*]. Transfer to SICU (CC687) from OR. No allergies except to environmental - rash. PMH: Hep C 91 - cirrhosis, esophgeal varices. PMS: tosilectomy, thyraloglossal cyst removal, hernia repair, L [\*\*4-20\*\*] discetomy, laproscopic shoulder surgery.

neuro: Sedated from OR, not reverse, unresponsive until midnight, PERL- 2mm brisk. Midnight - respond to stimuli - open eyes, track, slight move of head and hands. At 0300 - pt able to follow commands, nod head for yes and no to questions, MAE - stronger in upper than lower ext. PERLA - 3mm brisk. Weak gag and cough reflex. Negative head shake for pain.

cv; NSR with rare PVC (HR 67-80). BP 135-170/66-76. Temp max 100.1. CVP 9-11. SvO2 - 84-96%, CCO 8.3-10.1. PA 28-34/14-20. Warm, dry, pale, no edema.

resp; Clear lung sound bilaterally. Tolerate SIMV. Do not breath over the vent or bit ET tube. ET tube ballon inflated. Please see flow sheet for changes per Dr. [\*\*Last Name (STitle) 407\*\*] and transplant team verbal order. Respiratory acidiotic with compensation. no sob. minimal suction.

gu/gi; soft - soft distended abd. No bowel sound X4 quad. no flatus. no bm. no pain on light palpation. NG- +placement, pink bilious drainage. JP 1, 2 - small serosangious drainage at sites - serosagiuos drainage 2>1. T-tube - bilious drainage. foley patent - clear yellow urine >60 cc/hr.

Skin intact - small abrasions - R. upper arm, L. upper abd.

Glucose cover with sliding scale - Dr. [\*\*Last Name (STitle) 407\*\*] notify of Glucose >200.

Comfort verbally and explain all procedures. Lab done q4. 2 units FFP tranfuse for INR 1.6.

Plan; Continue to monitor. Bleeding precaution. Safety precaution.

"CONDITION UPDATE

PLEASE SEE CAREVUE FLOWSHEET FOR SPECIFICS.

NEURO: PT ALERT. CALM AND COOPERATIVE WITH CARE. MAEW. PERRL. FOLLOWS COMMANDS. COMMUNICATES VIA MOUTHING WORDS. FORGETFUL AT TIMES, REPETITIVE QUESTIONING. MINIMAL C/O PAIN, RELIEVED WITH IV MSO4.

RESP: LS CTA. SCANT SECRETIONS. VENT SETTINGS CHANGED TO CPAP, 10 IPS, 5 PEEP. RR THEN DOWN TO AS LOW AS 6BPM AT TIMES, CURRENTLY 9. SICU TEAM AND MD [\*\*Doctor Last Name \*\*] INFORMED DURING AM ROUNDS. O2 SATS STABLE. METAB ALK IMPROVING (WITH HCL GTT AND DIAMOX).

CV: AFEBRILE. NSR. SBP 170S TO 180S, UP TO 200 WITH STIMULATION. SICU RES [\*\*Doctor Last Name \*\*] AND [\*\*Doctor Last Name \*\*] INFORMED. CLONIDINE DOSE INCREASED AFTER DISCUSSION WITH TRANSPLANT TEAM. PA CATH D/[\*\*Name6 (MD) \*\*] BY MD [\*\*Last Name (Titles) \*\*]. LSC CVL CHANGED OVER A WIRE TO QUAD LUMEN AND PLACEMENT CONFIRMED BY CXR [\*\*Name8 (MD) \*\*] MD [\*\*Last Name (Titles) \*\*]. L FEM LINE D/C'D. DIAMOX STARTED AS ORDERED. TCO2 DECEASED. HCL GTT CONT'S. PH DOWN. SICU AND TRANSPLANT TEAMS INFORMED. FLUID BAL NEG >1L THUS FAR SINCE MN. PLT 97. NO INTERVENTION [\*\*Name8 (MD) \*\*] MD [\*\*Last Name (Titles) \*\*]. REPEAT PENDING.

GI: ABD SOFTLY DISTENDED. TENDER TO MOD PALP. NGT TO LCWS WITH SCANT O/P, CLEAR.

GU: CLEAR U/O VIA FOLEY.

ENDO: INSULIN GTT TITRATED PER RISS.

SKIN: SM AMT SEROSANG DRG FROM INCISION. STAPLES INTACT. NO ERYTHEMA. BILE DRAIN WITH MIN DK AMBER O/P. JP'S X2 WITH SM AMT SEROSANG DRG.

PLAN: MONITOR RR AND ABG'S CLOSELY. ? STOP HCL GTT TONOC. ? EXTUBATE IN AM. AWAIT REPEAT PLT. CONT TO TITRATE INSULIN GTT. CONT PER CURRENT MGMT.

"7p-7a; Full assessment in flow sheet.

neuro; A+OX1. Mouth words and nod heads. MAE - strong bilaterally. Pain per pt abd/incisional - morphine ivp given - good effect. Slept most of the night. PERLA - 3 mm. Wear glasses.

cv; SB/NSR without ectopy. SBP 160-180 and inc 200 with activities.

warm, dry, no edema. no cp.

resp; Clear lung sound. Tolerate CPAP. Improve ABG - metabolic alkolotic. HCL decrease by half.

gu/gi; soft to soft distended abd. slight pain on light palpation. Bowel sound hypoactive (very distant and rare) to absent. NG - clear, +placement. JP sites - scant serous drainage, JP 1+2 - serous drainage. T-tube - bile. abd suture site - d/c/i. foley patent - clear yellow urine >80 cc/hr.

int; Skin intact. d/c sites (RIJ, R AC, L. femoral) - d/c/i

insulin drip continue titrate <120. Labs done.

Plan; Continue to monitor. Extubation AM?

"Resp: [\*\*Name (NI) 97\*\*] pt on [\*\*Last Name (un) \*\*] psv 10/5/30%. Alarms on and functioning. Ambu/syringe @ hob. BS auscultated reveal clear sounds with slight diminished bases. Suctioned scant=small amount of white secretions. RSBI-26, SBY initiated. Pt maintaining adequate sats @99%. Anticipate extubation today. No further changes noted.

"CONDITION UPDATE

PLEASE SEE CAREVUE FLOWSHEET FOR SPECIFICS.

NEURO: PT ALERT. FOLLOWS COMMANDS. MAEW. PERRL. VERY AGGITATED THIS AM, C/O PAIN. IV MSO4 GIVEN Q1 HOUR WITH MIN EFFECT AT FIRST. SICU AND TRANSPLANT TEAMS INFORMED. ADDITIONAL DOSES IV MSO4 ORDERED AND GIVEN WITH POS EFFECT FOR PAIN, AND HALDOL GIVEN X2 AS ORDERED WITH POSITIVE EFFECT FOR AGGITATION. PAIN MGMT MAINTAINED CURRENTLY WITH PRN MSO4.

RESP: LS CTA. NO VENT CHANGES. METABOLIC ALKALOSIS CONTINUES. HCL GTT STARTED AS ORDERED. ABG'S STABLE.

CV: AFEBRILE. NSR. SBP 160S TO 180S, UP TO 200S WITH AGGITATION. SICU AND TRANSPLANT TEAMS INFORMED. PA NUMBERS STABLE, SEE FLOWSHEET. LASIX GIVEN X1 THIS AM WITH >1L DIURESIS IN 3 HOURS. PT FLUID BAL POS >100CC THUS FAR SINCE MN. K REPLETED X1 FOR 3.3. MAG 1.3 NOT REPLETED PER TRANSPLANT TEAM. 1 U PRBC'S GIVEN THIS AM FOR HCT 27, CURRENTLY 33. 1U PLT INFUSING FOR PLT CT 91 AND TRENDING DOWN. INR REMAINS 1.5.

GI: ABD SOFT, TENDER TO GENTLE PALP. NGT WITH MIN O/P, INITIALLY DK RED BLOOD, CURRENTLY BROWN. SICU AND TRANSPLANT TEAMS INFORMED.

GU: CLEAR U/O VIA FOLEY.

ENDO: FSBG ELEVATED. INSULIN GTT STARTED AND TITRATED TO MAINTAIN FSBG WNL.

SKIN: ABD INC WITH STAPLES INTACT, CLEAN AND DRY. LG AMT SEROSANG DRG AROUND JP INSERTION SITE THIS AM. SUTURED BY MD [\*\*Last Name (Titles) \*\*]. DRG STOPPED. MOD AMTS SEROSANG DRG FROM BOTH JPS. MIN AMT BILIOUS DRG FROM TTUBE.

PLAN: MAINTAIN ADEQUATE PAIN CONTROL. ? WEAN TO EXTUBATE IN AM. CHECK POST PLT CT. MONITOR LABS FREQUENTLY. TITRATE INSULIN GTT AS INDICATED. MAINTAIN PATIENT SAFETY. EMOTIONAL SUPPORT TO FAMILY.

"7p-7a; Full assessment in flow sheet.

neuro: A+OX1. Follow commands. mouth words and nod head appropriately. Weak gag and cough. PERLA - 3mm brisk. MAE. Pain per pt abd and back - morphine ivp given - good effect. Celexa and clodine po added - good effect - pt decrease agitation and pain. Normal affect. Pt have periods of agitation and anxiety - able to comfort verbally and reposition for pt - able to rest and calm.

cv; NSR/SB without ectopy. BP 160-180/80-90. Afebrile. PA 26-32/12-16. CVP 4-6. SvO2 - 81-85%. CCO 7.8-10. Warm, dry, slight general edema.

resp; Clear lung sound except dimish in RLL. Continue on SIMV - ABG still metabolic alkoltic. Continue with HCL drip. Suction for scant white sputum. no sob.

gu/gi; soft to soft distended abd. no pain on light palpation. Hypoactive and distant bowel sound. NG -+placement, bilious to clear drainage, slight abd pain when NG was clamp after med - no longer have pain when NG restarte LCS. JP sites - small serosangious drainage - DSD. JP 1+2 - serous/light brown drainage. T-tube - bilous. Foley patent - clear yellow urine. >45 cc/hr.

Skin intact except for abrasion R. upper arm and abd area.

Insulin drip - titrate glucose <120. Lab done - transfuse platelet for platelet of 96. Replace K - 3.4 and magnesium - 1.2. Continue to check lab q 8 hrs.

Plan; Continue to monitor.

"

"Nursing Progress Note

[\*\*2109-12-21\*\*] -> 0730

S/O

NEURO: Lethargic alt with alert, oriented x 3 but not logical s/t paranoid ideation, e.g. ""I hear the people talking about how they're going to kill the people here. .. ZWell technically, that is the same thing as killing. (ie planning care for patients to help them get better)

Pulled a-line out deliberately this a.m. because ""I read about the 13 symbols.""

C/o abd pain -> treated with MSO4 2mg with relief.

CV: Hypertensive, responded overnight to addition of anti-hypertensives. HRR, NSR.

RESP: LS clear. No distress.

GI: Abd soft, tender to percussion and plight palpation. Tolerating clear lox and bppst.

FEN: K+ 3.3, Phos = 1,8, Mg++ 1.8 -> team aware and will order repletion.

HAEM: Plt = 103K, INR= 1.2, Hct = 34.0.

Pt has golf ball -sized hematoma on left wrist where he pulled out a-line. Pressure applied x15 and pressure dressing applied. No further bleeding.

GU: Voiding copious amber u/o, fluid negative balance.

SKIN: healing apparent tape rashes. Abd incision clean, dry, well-approximated.

A/P

Continue current care.

Obtain cyclosporin levels this a.m.

"7p-: Full assessment in flow sheet.

Mr [\*\*Known firstname \*\*] [\*\*Known lastname 9891\*\*] will be transfer from NSICU to [\*\*Hospital Ward Name \*\*] 6.

A+OX3. Period of confusion - easily oriented. Clear speech. Flat affect. MAE. Strong gag and cough. [\*\*Last Name \*\*] problem swallowing [\*\*Name2 (NI) \*\*] or fluid. PERLA. Pain - abd incisional - morphine ivp given - good affect. VSS, afebrile. warm, dry, no edema. Clear lung sound. RA - >95%. nonproductive cough. soft abd. +BSX4. no bm. no flatus. abd suture site- d/c/i. JP - site d/c/i - serous drainage. T-tube - site d/c/i, bile drainage. Foley patent - clear yellow urine >30 cc/hr. skin intact. Glucose cover with insulin sliding scale. Pt slept on and off. Wife came by to visit. All personal belonging transfer with pt. All questions answers. Will notify wife in the AM when call.

"Condition Update A:

Please refer to careview for details and remarks.

NEURO: A&O x2-3, pleasantly confused, easily redirected. Medicated with MSO4 1-2mg IVP with good effect for c/o of abd pain.

CV: Afeb. 56-60's no ectopy. Clonidine increased to 0.3mg to start with next dose([\*\*2106\*\*]). SBP 190's->170's. No edema.

RESP: Tolerating extubation with normal ABG's. Currently tol NC 2L maintaining Pox >=97%. LS CTA with dimmer BLL. Assisting with C&DB. Weak nonproductive cough. Denies diff breathing, SOB.

GI/GU: Cont's on insulin gtt, 1-4u/h. Started ice chips this evening. No evidence of aspiration voice clear after swallowing, no coughing. Denies N/V. Liver U/S done, WNL per Transplant team. Diuressing clear yellow urine. -2.7L since MN. Diamox changed from [\*\*Hospital1 26\*\*] to QD.

SKIN: Cont's slightly jaundiced, sclera. Inc, T-tube and JP insert sites C/D/I. JP #1 medial serous fluid, T-bili 5. JP #2 lateral brown serous fluid, T-bili 6.

PLAN: Monitor resp status, ABG's, metabolic alkalosis. Assit with pulmonary tiolett. Assist with ice chips/sips water, monitor for aspiration. Monitor i/o, drain output's. Monitor hemodynamics. Titrate insulin gtt to keep FSBS <= 120. Cont with ICU care.

"CONDITION UPDATE

VSS, AFEBRILE. A/OX3. CONFUSED AT TIMES - BUT EASILY REORIENTED. C/O INCISIONAL PAIN - MEDICATED W/ MORPHINE PRN [\*\*Name8 (MD) \*\*] MD'S ORDERS W/ MOD EFFECT. LUNGS CTA BILAT, DIMINISHED AT BASES. NO C/O SOB. ABG'S ACCEPTABLE. REMAINS ON HCL DRIP. ABD SOFT - BOWEL SOUNDS PRESENT. TOLERATING CLEAR LIQS (WATER). BSUGARS LABILE - CONT ON INSULIN DRIP. INCISION - STAPLES INTACT, SMALL AMT OF S/S DRAINAGE OUT. U/O - CONT TO DIURESE, REMAINS NEGATIVE. NO STOOL THIS SHIFT. CONT TO MONITOR FOR S/S OF INFECTION/REJECTION. PAIN MANAGEMENT. PT [\*\*Name (NI) 928\*\*]. CONT CURRENT ICU TREATMENTS AND ASSESSMENTS.

11

### "CONDITION UPDATE

PLEASE SEE CAREVUE FLOWSHEET FOR SPECIFICS.

NEURO: ALERT AND ORIENTED X3, BUT CONFUSED AT TIMES, ASKING INAPPROPRIATE QUESTIONS. MIN C/O PAIN, RELIEVED WITH IV MSO4 X1.

RESP: LS CTA. ABG WNL. NO SOB.

CV: AFEBRILE. NSR. HCL GTT D/C'D. DIAMOX D/C'D. FLUID BAL NEG >700CC SINCE MN. PM LABS (INCLUDING PLT CT) PENDING.

GI: SBD SOFT. FAINT BS. NO FLATUS. TOL CL AND BOOST WELL. NO N/V.

GU: CLEAR U/O.

ENDO: INSULIN GTT TITRATED FOR FSBG.

SKIN: LATERAL JP D/C'D. ABD INC CLEAN AND DRY, STAPLES INTACT. MIN SEROSANG DRG FROM INC. MEDIAL JP WITH SM AMT SEROUS DRG. SM AMT AMBER O/P FROM BILE DRAIN.

PLAN: CONT TO MONITOR. CONT TO MAINTAIN PT [\*\*Name (NI) 928\*\*]. CONT PER CURRENT MGMT.

11

### "ADDENDUM

ACT: PT OOB TO CHAIR WITH 2 MIN ASSIST. REMAINED IN CHAIR X1 HOUR. SEE PT NOTE.

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