LIVER TRANSPLANTATION FOR PSC

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OVERVIEW

• INDICATIONS FOR TRANSPLANT IN PSC

• SPECIAL CONSIDERATIONS OF PSC

• TRANSPLANT SURGERY FOR PSC
INDICATIONS

• CHOLANGITIS AND STENTING

• PRURITIS

• RISK OF MALIGNANCY

• DECOMPENSATED CIRRHOSIS-MELD
SPECIAL CONSIDERATIONS

• INFLAMMATORY BOWEL DISEASE

• CHOLANGIOCARCINOMA

• RECURRENCE OF DISEASE
TRANSPLANT SURGERY

• STANDARD LIVER TRANSPLANT

• DONORS IN THE AGE OF MELD

• LIVE DONOR LIVER TRANSPLANT

• BILIARY RECONSTRUCTION
TEAM EFFORT

- NURSES
- COORDINATORS
- PHYSICIANS AND SURGEONS
- SOCIAL WORKERS
- DIETICIANS
- HOSPITAL SUPPORT
CU Transplant Surgeons
Surgical Techniques
Orthotopic Liver Transplant – Whole liver

- Gall Bladder Fossa
- Celiac Axis
- Splenic V.
- Hepatic A.
- Portal V.
- T-tube in Common Duct
Hepatico Jejunostomy
Overall Patient Survival

1yr      5yrs      10yrs
91%      80%      70%

A New Beginning – New Era
Liver Tx in US: UNOS Dataset

New Listings = [(EOY2 - EOY1) + OLTx + Deaths]
Strategies to Maximize the Donor Pool

- **ECD [Extended Criteria Donors]**
  - Older donors
  - High BMI Donors,
  - HTN, Stroke, Cardiac events
  - HCV HBV donors

- **DCD [Donation after Cardiac Death]**

- **Live donors**
  - LRD
  - LNRD
  - Altruistic Donation

- Increase donor consent rate
The Ethical Dilemma

Donor Risks

Recipient Benefits
Live Donor Liver Transplant
1997
ADULT LIVING DONOR LIVER TRANSPLANTATION USING A RIGHT HEPATIC LOBE

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Adult-to-Adult Transplantation of the Right Hepatic Lobe from a Living Donor

James F. Trotter, M.D., Michael Wachs, M.D., Gregory T. Everson, M.D., and Igal Kam, M.D.

Transplantation of the right hepatic lobe from an adult living donor to an adult recipient is rapidly emerging as an effective treatment for selected patients with end-stage liver disease. The development of living-donor liver transplantation in the United States over the past five years has been driven by the shortage of donor organs for transplantation. In the past decade, the number of patients awaiting liver transplantation has increased by a factor of almost eight, from 1676 in 1991 to 14,710 in 1999 (Fig. 1). During the same period, the number of liver transplantsations increased by only about 50 percent, from 2931 in 1991 to 4480 in 1999. With the growing discrepancy between the numbers of donors and recipients, the medical community is facing a pressing question: in Figure 1. Waiting List for Liver Transplantation in the United States.
Live Donor Liver Transplant
Donor Surgery

Caval Dissection

- Hepatic vein
- Right lobe of liver reflected
- Left lobe of liver
- Accessory hepatic veins
- Adrenal gland
- Spleen
- Kidney
- Portal vein
- Common bile duct
- Proper hepatic artery
- Stomach
Donor Surgery

Caval dissection
Hilar dissection with intra-operative cholangiogram
Parenchymal dissection
Donor Surgery

Hilar Dissection
Donor Surgery

Hilar dissection
Donor Surgery

Parenchymal dissection
Donor Surgery

Parenchymal dissection
Recipient Surgery-LDLT

- Recipient hepatectomy
- Vascular anastomoses
- Bile duct anastomoses
Hepatico Jejunostomy
A New Beginning – New Era

Overall Survival by Graft Type
Choledochoduodenostomy is a Safe Alternative to Roux-en-Y Choledochojejunostomy for Biliary Reconstruction in Liver Transplantation

William Bennet · Michael A. Zimmerman · Jeffrey Campsen · Mercedes Susan Mandell · Tom Bak · Michael Wachs · Igal Kam

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Choledocho-Duodenostomy in Liver Transplant

Technical

• **2000-2009:** 25 recipients received CDD vs 85 recipients received CDJ

• No difference in mortality, graft survival, or complications

• Accessible biliary tree

Hepatico Duodenostomy
CONCLUSIONS

• PSC IS AN EXCELLENT INDICATION FOR TRANSPLANT
• LIVE DONATION PLAYS AN IMPORTANT ROLE
• PATIENTS CAN ENJOY AN EXCELLENT QUALITY OF LIFE POST TRANSPLANT
On July 28, 2000

I had a liver transplant at The University Hospital in Denver, Colorado. I was diagnosed nine years ago with PSC (Primary Sclerosing Cholangitis), a rare, degenerative bile duct condition which required a transplant. Dr. Greg Everson took great care of me leading up to the transplant. Dr. Igal Kam performed a perfect surgery and I was back doing what I loved to do less than two months later. I’m so grateful to all of the professionals at Denver’s University Hospital!

It was a miracle

I’m lucky to be alive today. It was truly an amazing experience for me and for my family. To receive the gift of life is a humbling experience. I will forever be grateful for my second chance. Everyday, I thank God and I thank the individual’s family for the decision to donate.