



LIVER TRANSPLANTATION – A CASE STUDY

Dr. V. Hemavathy M.SC(N),MA, M.phil, Phd 1

Mrs. Girija Bhaskaran M.SC(N), 2

Deepa .J M.SC (N) 3

1. Principal, Sree Balaji College of Nursing, Chrompet, Chennai.

2. HOD Medical surgical nursing department, Sree Balaji College of Nursing, Chrompet, Chennai.

3. M.sc Nursing Sree Balaji College of Nursing chrompet, chennai

ABSTRACT

Liver transplantation or hepatic transplantation is the replacement of a diseased liver with the healthy liver from another person. Liver transplantation is a treatment option for end-stage liver disease and acute liver failure, although availability of donor organs is a major limitation.

key words : hepatic transplantation, donor organs, healthy liver.

INTRODUCTION

The discrepancy between organ supply and demand has reached an all-time high in the United States, resulting in increased wait times for transplant and a higher number of deaths on the transplant wait list. Living donor liver transplantation (LDLT) is playing a significant role in addressing the shortage of grafts for patients awaiting liver transplantation.

CASE PRESENTATION

History of Present Illness: Mr. X 49-year-old man was referred to liver Transplant unit for a liver transplant evaluation due to end-stage liver disease secondary to alcoholic cirrhosis steatohepatitis. His liver disease was complicated by portal hypertension with intractable ascites, pedal edema. The patient underwent an LDLT(living donor liver transplantation) in Aug 2023 using a right lobe graft from his daughter. Surgery using the navigation system (donor only), along with intraoperative ultrasound to identify the hepatic vein, was uneventful.

Social History: He is an Alcoholic for more than 23 years however, use. He is in a married, and has two children. He is employed in private company.

Allergies: No known medicine, food, or environmental allergies.

Past Medical History : Nil

Past Surgical History: Cholecystectomy done in 2015

Physical Exam:

Vitals: Temperature, 97.8 F; heart rate 88; respiratory rate, 22; blood pressure 120/80; body mass index, 28

General: he is well appearing but anxious, a pleasant male lying on a hospital bed.

Respiratory: mild wheezing; tachypneic.

Cardiovascular: She has a regular rate and rhythm with no murmurs, rubs, or gallops.

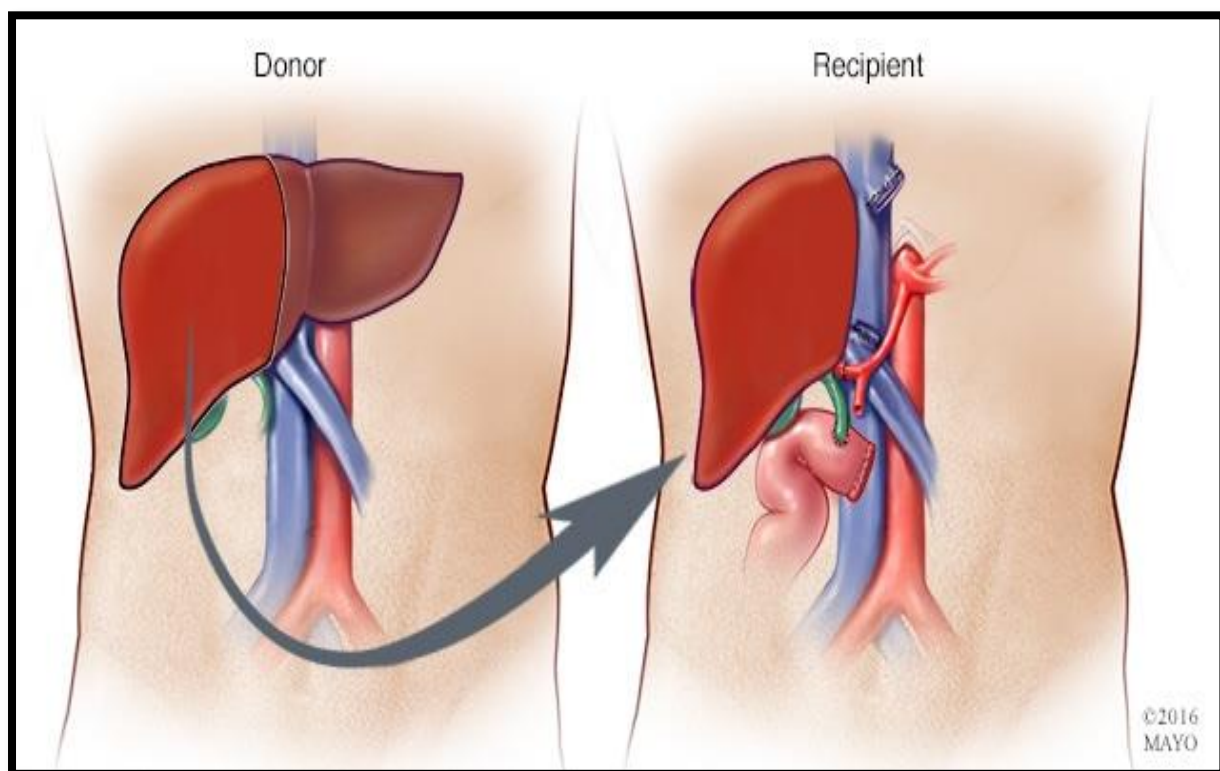
Gastrointestinal: Bowel sounds heard. No bruits or pulsatile mass.

Name of the surgery : LDLT- Liver Donor Liver transplantation.

Reason For Surgery End-stage liver disease secondary to alcoholic cirrhosis steatohepatitis

PREOPERATIVE EVALUATION OF PATIENT

Blood test : Hb:8.5mg/dl, PCV24, WBC 5340, platelets: 90,000,Sodium 138,Pottasium 3.8,T.Bilirubin 9.11,D. bilirubin 8.22, ALP 133,Lactate 3.3.Serology- negative. SGOT 39, SGPT 127.



PROCEDURE

A liver transplant is a surgery that removes a liver that no longer functions properly (liver failure) and replaces it with a healthy liver from a deceased donor or a portion of a healthy liver from a living donor

Liver transplant surgery was done on Aug 07. 2023 under general anesthesia. duration of surgery 10 hours. To begin the operation, surgeon made one long incision across patient abdomen to access liver. They carefully separated patient's liver and clamp of blood vessels and bile ducts that were connected to it. Then install the new liver and attached it to blood vessels and bile ducts. Two drain tubes on Abdomen placed .After the incision was closed. After the surgery patient shifted to ICU for further management. after the procedure patient was unstable so Patient wass on mechanical ventilation for 1 day. After that patient shifted to transplant unit for supportive care.

POST OPERATIVE EVALUATION

Blood test : Hb:8.2mg/dl, PCV24, WBC 2690, platelets: 21,000,Sodium 135,Pottasium 3.4,T.Bilirubin 7.11,D. bilirubin 6.22, ALP 133,Lactate 3.3.Serology- negative. SGOT 26, SGPT 47.ECHO : EF 60% USG ABDOMEN : Mild Ascities present.

MANAGEMENT

Medical management begins with all supportive care like pain management, antibiotics, corticosteroids, immunosuppressants. The medications Inj. Piptaz 1gm IV BD, Inj. Meropaneum IV BD, Inj. Tobramycin 50 mg IV BD ,Inj. Flucanazole100ml IV BD ,Inj. Rabeprazole 120 mg IVBD ,Inj. Emeset 4mg IVBD, Inj. Morphine 2mg IVBD was given.

Post operative complications

After liver transplantation the patient's the new liver not working for a short period after that patient undergone biliary reconstruction(duct to duct) done. patient received 15 days of intensive care then shifted to liver transplant unit.

NURSING CARE PROVIDED

- Strict aseptic technique maintained while doing procedure.
- Maintained strict intake and output chart
- Provided comprehensive care
- Monitored blood investigations like CBC , LFT, RFT, USG abdomen.
- Assessed for complication like infection.
- Administered analgesics, antibiotics, immunosuppressants
- Provided psychological support
- And family counselling.
- Assessed respiratory status, noting increased respiratory rate, and dyspnea.
- Auscultated lungs, noting diminished breath sounds and developing adventitious sounds.
- Assessed for signs that indicate the presence of ascites.
- Measured the client's abdominal girth.
- Monitored serum albumin and electrolytes (particularly potassium and sodium).
- Offered counselling and support for lifestyle modifications, including alcohol cessation and weight management.

PROGNOSIS:

After 15 post operative day patient is conscious and oriented, vitals are stable. patient is taking soft solid diet. Patient was ambulated and hemodynamically stable. His intake and output is adequate . His surgical wound is intact no signs of infection like infection and bleeding.

LIVING DONOR

The living liver donor was a 22-year-old woman who volunteered to donate to his father. she was evaluated by the multidisciplinary living donor team and was deemed an appropriate candidate for liver donation by the Donor Advocacy Team and the Patient Selection Committee. During the donor evaluation. Donor has no comorbidity.

CONCLUSION

A liver transplant is surgery to replace a diseased liver with a healthy liver from another person. A whole liver may be transplanted, or just part of one. In most cases the healthy liver will come from an organ donor who has just died. Sometimes a healthy living person will donate part of their liver. A living donor may be a family member. Or it may be someone who is not related to but whose blood type is a good match.

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