Liver Transplant

Transplantation of the liver is now a remarkably successful procedure with ~60% 10yr survival for cirrhosis/ALF indications

Selection of patients and pretransplant evaluation

Considered for progressive or otherwise fatal liver disorder when no longer able to enjoy a reasonable existence, although still well enough to withstand the trauma of the surgery involved. Almost every type of end-stage liver disease has been treated by transplantation.

Specific diseases

- Malignant tumours of the liver - high rate of tumour recurrence has led to ↓Tx for malignancy.
- Cirrhosis – cryptogenic, PBC, HBV, HCV (recurrence of HCV is ~universal, but mostly not significant clinically)
- Budd-Chiari syndrome – best surgical option. Long-term anticoag. mandatory port-Tx
- Inborn errors of metabolism
    - α1-antitrypsin deficiency
    - glycogen storage disorders
    - galactosaemia
    - Wilson's disease
- Acute liver failure – e.g. drugs (paracetamol), toxins.

Rejection and immunosuppression

- The liver is rejected less aggressively than are skin, kidneys, or heart.
- Hyperacute (occasional), acute & chronic liver rejection occur
- Initial anti-rejection Rx = **prednisolone** + **cyclosporin** or **tacrolimus**.
- Then azathioprine or **mycophenolate mofelit** is introduced to reduce doses of these
- Acute rejection common between day 7-14 postop. Rx IV steroids.
- Liver biopsy is essential in the diagnosis of all rejection.
- Acquired hepatitis virus infection of the graft, particularly CMB, will require histological as well as serological confirmation; Rx: **ganciclovir**,
- USS may distinguish obstructive jaundice from rejection or hepatitis infection of Tx.
- When cirrhosis has been caused by HCV there is a high rate of reinfection of the graft (as in the case of HBV). Interferon and ribaviricin may help. Cases of HBV recurrence that break through prophylactic treatment with immunoglobulin often respond to use of antiviral agents **lamivudine** or **famiciclovir**.

Long-term rehabilitation and overall results

- Chronic immunosuppression renders patients susceptible to infections,
- Cyclosporin can produce hypertension, renal impairment, and headache.
- Tacrolimus also produces renal impairment
- Steroids may exacerbate osteoporosis (already a problem in PBC)
- In those who survive beyond 1 year, rehabilitation is usually excellent.
- One-year survival figures are running at 75-80 per cent for elective operations, with 5-year survival of 65-70 per cent.
- Recurrence of the underlying disease is common in HBV & HCV but rare in PBC & autoimmune chronic active hepatitis.