Discussion on "The risk of surgery in patients with cirrhosis" (François Durand)

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Discussion held at the BASL Winter Meeting 2006 in Bruges, following the lecture of Prof F. Durand (Hôpital Beaujon, Clichy) on surgical risk factors in cirrhosis. A summary of the most important topics from the discussion is given below.

What to do in an emergency operation ?

The gastroenterologist and surgeon should sit together and evaluate if surgery can be optimised by postponing the intervention. If the indication of surgery is life threatening (for example incarcerated umbilical hernia), than surgery should be done immediately with maximal support and knowing that morbidity and mortality will be high.

In other conditions it is worthwhile to try to improve the condition of the patient.

The administration of parenteral nutrition (7 d before and 7 d after surgery) improves outcome after surgery in cirrhotic patients (1). Enteral nutrition should preferably be administered with a feeding tube with its tip in the jejunum (e.g. Bengmark feeding tube) to minimise the risk of aspiration pneumonia.

Coagulation disorders

When an urgent operation is necessary, the administration of platelets, fresh frozen plasma and coagulation factor concentrates can be used to optimise coagulation. The use of Vitamin K in these conditions is too late.

After surgery, when the patient is immobilised (eg bone fracture), it is wise to give low molecular weight heparins (LMWH), because cirrhotic patients, even if their coagulation is disturbed, can make thrombi and die from lung embolisms. LMWH prophylaxis does not increase the risk of variceal bleeding.

Prescription of pain killers

The use of *non-steroidal anti-inflammatory drugs (NSAIDs)* is absolutely contra-indicated in patients with cirrhosis, especially due to the negative effects on kidney function. Patients who are operated have often an impaired renal function due to fluid losses, infections and hypovolemia. Intrarenal prostaglandins try to keep renal blood flow in balance. When NSAIDs are given, prostaglandin production decreases by cyclooxygenase inhibition and results in renal vasoconstriction and kidney failure.

Paracetamol can be given in the postoperative phase in a dose of maximum 3 grams a day. Every day medication should be adapted to the pain level of the patient. Patients who receive high dose of paracetamol (> 3 g/d) during more than 5 days, can develop liver failure.

Tramadol and opiates should better be avoided, however, if paracetamol is not sufficient, they can be considered. They can have central nerve effects and result in encephalopathy. A conscientious follow-up is absolutely necessary.

Estimation of the risk of intra-abdominal surgery

The MELD and Child-Pugh score are both good scores to estimate the risk of abdominal surgery.

The measurement of the hepatic venous pressure gradient (HVPG) with a cut-off at 12 mmHg predicts also higher risk of morbidity and mortality in the perioperative phase. It is not clear if the placement of a transjugular intrahepatic portosystemic shunt (TIPS) reduces the risk of complications after surgery. TIPS reduces portal hypertension, with reduction of ascites and improvement of the nutritional status, however TIPS can also enhance liver failure.

References

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