Discussion on medical treatment of portal hypertension

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Primary prophylaxis of bleeding from varices

The administration of beta-blockers in the early phase of cirrhosis does probably not prevent the formation of varices (1-3). Whether beta-blockers can prevent the growth from small to large varices remains to be determined. At this moment two studies gave opposite results (1,4).

Independent prognostic factors for first variceal bleeding are Child Pugh class, size of varices and red wale markings (5). All patients with medium or large-sized varices should receive primary prophylaxis.

Beta-blockers are still the first choice for primary prophylaxis of oesophageal variceal bleeding. If the patients have contraindications or intolerance to beta-blockers, variceal band ligation can be an option for medium to large varices as primary prophylaxis. Isosorbide 5-mononitrate in monotherapy or in combination with beta-blockers are not indicated for the prevention of first variceal bleeding.

It would be optimal if the portal pressure was measured in patients before and 1 month after the start of beta-blocker treatment. The response to beta-blockers is reached when hepatic venous pressure gradient (HVPG) is below 12 mmHg or decreased with more than 20%.

A threshold of the HVPG of 10 mmHg is probably necessary for the formation of oesophageal varices, and a threshold of 12mmHg for variceal bleeding. The variceal pressure is predictive for bleeding, however the sensitivity is low. Now there is a new endoscopic device available, the value of the variceal pressure should be revalidated.

Acute bleeding episodes

Vasoactive drugs (terlipressin, somatostatin, octreotide) should be started as soon as possible before endoscopy. Early administration increases the efficacy of endoscopic therapy in the acute bleeding phase of oesophageal varices (6). Endoscopic therapy in combination with vasoactive drugs is superior than the use of vasoactive drugs alone or endoscopy alone. In the acute phase, endoscopic sclerotherapy is as effective as variceal band ligation. Even if there is no active bleeding at endoscopy, it is recommended to perform endoscopic therapy in high risk patients. Because the risk of rebleeding within the first 5 days, with the highest risk within 48 hours, it has been generally recommended that the vasoactive drugs should be administered during 5 days. Trials should be performed to determine the optimal duration of the pharmacologic treatment.

Glue is not the first line treatment for bleeding oesophageal varices, because of the high risk of embolization and fistulisation.

Antibiotic prophylaxis in cirrhotic patients with gastrointestinal bleeding should be instituted from admission as antibiotics may prevent infection and improve survival (7,8).

In case of massive uncontrolled bleeding, a balloon tamponade can be taken into account. This balloon tamponade is only a temporary measurement as bridge to transjugular intrahepatic porto systemic shunt (TIPSS) placement. This balloon should be placed by an experienced person to avoid severe complications with this technique. However, the six-week mortality rate after salvage TIPSS is still high (25-50%) (9).

Secondary prophylaxis

Beta-blockers are still the first choice in the prevention of rebleeding from oesophageal varices. There is no relationship between the decrease in heart rate and decrease in HVPG. Clinically, the maximum tolerated dose of beta-blockers should be given to the patient. TIPSS is not the first choice for the prevention of rebleeding. TIPSS should only be offered to patients who fail first line therapy (beta-blockers, band ligation) for prevention of recurrent bleeding.

Most of the physicians present at the BASL meeting use beta-blockers in association with band ligation for further eradication of varices. However, there is only 1 study available about the usefulness of this method (10). Variceal band ligation is the preferred treatment to prevent rebleeding in patients who have contraindications for beta-blockers or who have bled while on beta-blockers (9).

If beta-blockers prevent variceal recurrence after eradication of the varices by band ligation, has still to be proven.

Winter meeting BASL in Spa 13 December 2003 (Roberto de Franchis).
Discussion held at the Winter BASL meeting in Spa, following the talk of Prof de Franchis (Milan) on medical treatment of portal hypertension. A summary of the most important topics from the discussion is given below.

Congestive gastropathy due to portal hypertension

The mosaic pattern on gastroscopy is not specific (60%) for congestive gastropathy due to portal hypertension. It is also important to make the difference between gastropathy and gastric antral venous ectasia (GAVE).

Beta-blockers are effective in the prevention of acute bleeding and in the prevention of rebleeding from gastropathy, however still 50% of the patients will rebleed (11).

In case of acute bleeding from gastropathy, vasoactive drugs have been anecdotally used with a high success rate (70-100%) in uncontrolled studies.

In patients with chronic bleeding from congestive gastropathy, beta-blockers should be started, iron supplemented and blood transfusion given. TIPSS placement should be considered because TIPSS decreases bleeding from gastropathy. The possibility of liver transplantation should be taken into account in those patients with chronic bleeding. Other medical therapies should be further evaluated.

In patients with chronic bleeding, a colonoscopy, jejunoscopy and endoscopic capsule can sometimes reveal small bowel or colonic varices or ectasia.

Gastric varices

At this moment glue (bucrylate) injection is the first choice to stop active bleeding from gastric varices and appear to do better than sclerotherapy or banding. In some centres, band ligation is used in active gastric variceal bleeding (12). Glue injection can cause embolization and infection with septicaemia. The administration of antibiotics in all patients with variceal bleeding (oesophageal, gastric) is strongly advocated because this causes an important reduction in mortality in those patients.

In case of refractory gastric variceal bleeding, TIPSS is the salvage procedure.

However, there is a lack of data on long term therapy and prevention of rebleeding from gastric varices. It is not clear if repeated glue injections or drugs are effective in the prevention of rebleeding.

Conclusion

- At this moment pre-primary prevention of the development of varices is not recommended.
- Beta-blockers are still the first choice as primary prevention of variceal bleeding. Band ligation can be the second option in patients who have contraindications, do not respond or have side effects due to beta-blockers.
- During an acute bleeding episode, vasoactive drugs should be started as soon as possible and followed by an endoscopic intervention. Vasoactive drugs should be maintained during 5 days.
- In the secondary prevention of rebleeding, beta-blockers are still the first choice. It has to be confirmed if beta-blockers must be combined with endoscopic variceal eradication (band ligation).
- Chronic bleeding from gastropathy can be prevented by beta-blockers or TIPSS placement.
- Acute gastric variceal bleeding should be treated with glue injection.
- In case of refractory bleeding from oesophageal or fundic varices, a balloon tamponade, placed by an experienced person, should be a temporary bridge to TIPSS.

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