LEADING ARTICLE

BLEEDING OESOPHAGEAL VARICES

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Upper gastrointestinal bleeding presenting either as haematemesis or massive fresh malena has always been an enigma, a concern and a challenge to both physicians and surgeons. Initially, the problem was centred around making an accurate diagnosis as to the aetiology of the bleed but with the popularisation of the ubiquitous endoscope, emphasis is now shifted towards management. The discovery of H_2-blockers has made the task of dealing with acute erosive gastritis a little clearer but a triage for bleeding oesophageal varices remain as elusive as ever.

Doctors who undertake the management of patients with bleeding varices face a complex and challenging problem. Not only do they have to treat the acute blood loss and its haemodynamic consequences, but they must also deal with a number of associated conditions frequently accompanying the underlying liver disease viz poor nutritional status, coagulopathies, renal impairment, susceptibility to infection, fluid and electrolyte abnormalities and ascites, altered mental state and respiratory insufficiency. Control of bleeding is of paramount concern as continued haemorrhage will lead to further deterioration of the already compromised patient. In this context, the article by Teoh et al[1] in this issue of the journal serves both as a reminder as to what is available and also as a source of information for those who intend to draw up a plan of action for dealing with patients with bleeding varices.

There can be no doubt that in dealing with patients with actively bleeding varices, the first concern is to resuscitate the patient and to stop his bleed by non-interventional means. Such conservative measures include the control of coagulopathy, pharmacological manipulations (eg pitressin injections), balloon tamponade and injection sclerotherapy. In most instances, such measures will be initially effective. It is the group of patients in whom bleeding persists that this particular paper deals with.

Using univariate analysis, the authors have found that Child-Pugh's classification of hepatic reserve wherein Group A fared best and Group C the worst and massive blood transfusions (more than 3 litres) were the best guide to eventual outcome. Surprisingly their finding that the surgical technique used to control bleeding (ie transgastric ligation or oesophageal transection) which appeared to affect outcome was not confirmed when multivariate analysis was applied. One would expect as suggested by univariate comparison, that the more involved procedure of oesophageal transection would carry a higher morbidity and mortality. But this was not to be for when Child-Pugh's classification was taken into consideration, surgical technique was not found to be a risk factor. This unexpected finding could well be due to the small numbers involved. Hence further observations as the experience increases are warranted.

One other message is clear from this article and that is, that Child-Pugh's Group C patients have practically no chance of survival with either method of surgical intervention. In this regard it is insinuated that attempts must be made not to submit such patients to surgery. Their best bet, as the state of the art stands today, would be to be included in a trial with the transjugular intra hepatic portosystemic stent-shunt as described by Haag and Ochs[2]. This may be the case in centres where the device is available. For the less advanced centres, classification of patients as Child-Pugh Class C should not be considered a contraindication to surgery. In fact the majority of patients who do not respond to conservative methods within the first 48 hours are usually Class C patients[3]. It is these very patients that one has to be more aggressive and not wait for multiorgan deterioration before embarking on surgery that one can hope for a favourable outcome.

Another surgical option available for uncontrollable oesophageal variceal bleed is portosystemic shunting. Orloff[4] who has been a long time advocate of emergency portosystemic shunting for the control of bleeding oesophageal varices recently completed a prospective study comparing medical therapy with shunting where the results clearly favoured the latter in terms of early and late survival. Proponents of medical treatment argued that the groups were not comparable as sclerotherapy was not included as a modality of therapy in the medical group. The frequent occurrence of encephalopathy without taking into consideration the fact that many patients would have had massive bleeds with residual blood in the gastrointestinal tract has also been used as a case against shunting. The prospective randomised trial by Cello et al[5], comparing portocaval shunt with sclerotherapy in the management of acute variceal bleeding in patients with severe cirrhosis could put this debate to rest. In this study, portocaval shunt was not found to have any advantage over sclerotherapy as far as mortality was concerned. However, sclerotherapy patients had more episodes of rebleeding and readmissions to hospital with 44% of survivors in the sclerotherapy arm eventually needing portosystemic shunt because of recurrent haemorrhage. This is not unexpected since, as with the ligation and transection procedures, sclerotherapy has not addressed the problem of the cause of the bleed ie that of portal hypertension. One other drawback of sclerotherapy that has to be considered is its effect on subsequent surgery. Chaudhary and Aranya[6] suggest that the oedema following sclerotherapy may be responsible for the high incidence of anastomotic leaks noted in patients who underwent oesophageal transection soon after failed sclerotherapy. Chronic sclerotherapy could also contribute to perioesophageal shrinkage and fibrosis and thrombosis of portal channels, thereby making subsequent surgery, if indicated, technically more difficult or even impossible. It would seem reasonable therefore to suggest that sclerotherapy should not be taken lightly if the patient is likely to require surgery soon or at a later date. The question is who will need surgery and what surgery?

Experience and literature review suggest that patients presenting with bleeding oesophageal varices fall into 3 fairly distinctly demarcated groups:-

Group 1

Patients whose bleeding is easily controlled by conservative

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means and who can be safely discharged from hospital with no further significant rebleeds in the natural history of their disease.

Group 2

Patients whose bleeding can be controlled by conservative measures but who will rebleed while in hospital or some time in their life, thereby warranting further admissions and subsequent surgery.

Group 3

Patients whose bleeding cannot be controlled by conservative measures and hence will require emergency surgery.

Unfortunately, this categorisation can only be arrived at retrospectively. Be that as it may, it behoves each one of us to attempt to put our patient in one of these 3 categories in the course of their management because if we are able to do so, a triage can be easily formulated viz following confirmation of diagnosis and resuscitation; Group 1 patients should be managed conservatively, Group 2 patients should be managed conservatively in the first instance followed by elective portosystemic shunting at the earliest convenience and Group 3 patients should be prepared for transgastric ligation or oesophageal transection or even portosystemic shunting while endeavours are being made to stop the bleeding.

In the interim, it would be advantageous to all patients if hospitals develop teams comprising of physicians, surgeons, anaesthetists and intensivists who will be familiar with problems specific to this condition. Treatment of variceal haemorrhage requires a high degree of awareness of the spectrum of complications and of the options available. Each team should have a standard protocol with general agreement on a diagnostic and therapeutic approach so that precious time is not lost on the useless pursuit of a particular line of treatment while the patient deteriorates.

For starters, the approach adopted by Langer et al[3] wherein all the factors discussed above, namely severity of bleed and haemodynamic instability, nature of the underlying liver disease and patency of the portal venous system are taken into consideration, may be used as a guideline by centres who have yet to develop their own protocols.

It cannot be over emphasised that time is of the essence. Here, Langer and colleagues use 48 hours as the cut-off point. If control of bleeding is achieved within 48 hours of hospital admission, a decision must be made regarding subsequent elective therapy to prevent a rebleed. On the other hand, if bleeding continues unabated or a rebleed occurs within 48 hours, the next course of action is dependent on whether the patient is a surgical candidate. In their experience, acute alcoholic hepatitis, marked coagulopathy uncorrectable by fresh frozen plasma (FFP) and other clotting factor and pharmacological manipulations, major systemic derangements associated with liver dysfunction eg renal failure, severe concurrent sepsis, cardiac failure and respiratory insufficiency are contraindications to surgery. Aggressive medical treatment will be the only avenue open to the non-surgical candidate. They stress that patients with ascites or encephalopathy and those classified as Child-Pugh's Class C are not to be denied surgery.

For patients who do not have contraindications to surgery, the actual operative procedure recommended is dependent on the patency of portal veins, haemodynamic status and the pathology and severity of the liver disease.

Patients with uncontrollable bleed or who rebleed within 48 hours of hospitalisation should be submitted for a total portosystemic shunt. Both the end to side portocaval or side to side mesocaval shunts are equally effective. In the presence of marked ascites, the mesocaval shunt is preferred. Good candidates with non alcoholic liver disease are particularly suited to the distal splenorenal shunt (Warren shunt). Liver transplant may be considered for the non alcoholic patient with advanced liver disease.

In the event that a non alcoholic surgical candidate does not have patent veins and is hence not suitable for shunt surgery, oesophagogastric devascularisation, splenectomy and oesophageal transection as described by Sugiura[7] will be the option of choice. Alcoholics with no patent veins may be offered straightforward oesophageal transection or transgastric ligation.

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