Bleeding varices in the elderly

Bleeding from oesophageal varices carries a high mortality. Although endoscopic sclerotherapy is undoubtedly the first line of treatment today, 30% of patients fail to leave hospital alive,1 and even in specialist units this figure is not less than 20%.2 Since the death rate after upper gastrointestinal haemorrhage from all causes rises sharply in the elderly,3 one might be forgiven for assuming that this section of the population has such an appalling outlook that variceal haemorrhage should be most humanely ‘treated with limited transfusion and sedation.’4

In reality the prognosis of this condition is a good deal better – several groups having reported both short and long term survival rates that are broadly comparable with those found in younger patients.5–7 Three of these studies, from Cologne,8 Leeds,9 and Sheffield,10 have provided comparative data on large numbers of patients and their combined experience of 149 subjects over the age of 65 years (the German patients were 70 and over) is large enough to allow comparison with 475 younger patients from the same centres. The message from all three units is similar – hospital mortality from the first variceal bleed is not significantly greater in the elderly than in patients under 65 years. Two year follow up of those who survived to leave hospital shows that while there is an increased mortality among the elderly this is entirely due to non-hepatic causes and that once survival is corrected for age there is no difference between the two cohorts, being of the order of 55% at one year and 50% at two years. The predictive value of the Child’s classification10 at the time of variceal bleeding in terms of predicting survival seems to be as accurate in the elderly as in younger cirrhotic patients.

Closer examination of these studies shows a number of features that may help in the clinical management of these patients. Firstly, the aetiology of the cirrhosis is somewhat different; alcoholic liver disease is less common in the elderly but there is an increased prevalence of both cryptogenic cirrhosis and primary biliary cirrhosis in this group. Elderly women with bleeding varices seem to outnumber men, perhaps to be expected in view of the lower incidence of alcoholic cirrhosis and the longer life expectancy of women. Although not explicitly stated, all the studies suggest that good early survival rates are a direct result of endoscopic sclerotherapy and its early energetic and effective use. Nevertheless, variceal haemorrhage was the cause of death in almost half the patients who died during their first hospital admission while infection and hepatorenal failure accounted for most of the rest. Although late rebleeding often occurred and resulted in readmission to hospital, it accounted for only a minority of deaths. Myocardial infarction and stroke, two of the major causes of death in the elderly, are hardly mentioned in these series. This could imply that individuals with portal hypertension are protected against these degenerative vascular disorders but the possibility of a selection bias against referring patients with bleeding varices who have multiple non-hepatic pathologies cannot be excluded. The severity of the bleeding in the referred patients was similar to that in younger patients; at least 20% required balloon tamponade in order to control active bleeding at the time of initial endoscopy.

What general recommendations can be made about the overall management of bleeding varices in the elderly? With a few notable exceptions, the policy should be similar to that advocated for younger subjects. Regardless of age, any patient with suspected variceal bleeding should be submitted to immediate resuscitation and urgent endoscopy so that the source of the haemorrhage may be identified and appropriately treated. Intravariceal injection of sclerosant should be performed at the same time, if the expertise is available. If extensive and continuing bleeding precludes this, balloon tamponade should be considered, as this is highly effective and has a low complication rate in experienced hands.1 Not only will this ‘buy time’ to assist with the resuscitation of the patient, but if necessary it will enable the patient to be transferred to a unit where endoscopic sclerotherapy can be undertaken.

Many would hesitate to use vasopressin in view of the high incidence of ischaemic heart disease in this age group, but it may be combined with nitroglycerin11 when the harmful vasconstrictor side effects are less common. Terlipressin (glypressin)12 and somatostatin1 have been advocated as effective drugs in the management of acute variceal haemorrhage but there are no published reports of their use specifically in the elderly. Once initial control has been achieved, a maintenance sclerotherapy programme should be instituted with repeated injections every three weeks or so until thrombosis of the varices has been achieved and subsequent periodic checks every three to six months to ensure maintenance of variceal occlusion. Although not absolutely contraindicated, propranolol should be used with caution. The elderly are more prone to heart failure and chronic obstructive airways disease so that the risk of adverse effects is likely to be proportionately greater.

Major problems arise when variceal bleeding is not adequately controlled by these procedures, which in the English series occurred in less than 10% of patients. Portacaval shunt surgery has not enjoyed great popularity
because of the very high incidence of postoperative encephalopathy in the elderly. Early reports that the technically more complex distal splenorenal shunt might prevent this complication have not unfortunately been confirmed by subsequent experience. Although there is no extensive published experience in elderly patients, oesophageal transection using a stapling device seems to offer an attractive emergency means of arresting haemorrhage. This procedure will achieve temporary relief only since collateral veins are likely to develop across the anastomosis within a few months, and will ultimately bleed. The likelihood of such a recurrence can be reduced by combining the operation with devascularisation of the upper stomach, although prolonged surgery may be undesirable in these patients. The varices, if they recur and re-bleed, may then be amenable to sclerotherapy. There is no clear evidence that prophylactic sclerotherapy is desirable for patients who have not bled from varices no matter how large these veins may be.

In addition to the problems of managing variceal haemorrhage, care and attention must be directed to other aspects of the liver. Ascites should be treated with diuretics, although the elderly tolerate marked shifts in fluid and electrolytes less well than younger patients. In particular, latent and overt potassium depletion is more common in older individuals. Hypoglycaemia and infection are important and potentially lethal complications which should always be considered. The increasing impairment of cerebral blood flow that accompanies senescence results in a greater tendency to neuropsychiatric disturbances. Thus an impaired conscious level frequently complicates variceal haemorrhage, and hepatic encephalopathy may be difficult to distinguish from a cerebro-vascular accident. In common with other organs in the body, the metabolic activity of the liver is affected by increasing age and prescription of all medication should be considered carefully with this in mind. Extrahepatic disorders unrelated to cirrhosis in portal hypertension occur with greater frequency in the elderly: in our experience more than 10% of patients over the age of 65 years with variceal haemorrhage have glucose intolerance requiring treatment with either insulin or oral hypoglycaemic agents. The increased frequency of malignant disease in this population is of importance in view of the major impact on overall management. Both hepatoma (secondary to cirrhosis) and carcinoma of the head of the pancreas may induce portal hypertension and variceal bleeding by infiltration of the portal venous system, and haemorrhage is not infrequently the presenting clinical feature. Rarely, other tumours may present in this way when extensive hepatic metastases interfere with the portal venous drainage. These cases can usually be rapidly identified and diagnosed using non-invasive techniques such as ultrasound or computed tomography, and since the prognosis of these patients is so poor, management should be directed towards symptomatic relief alone.

Such cases exemplify the need for initial careful assessment so that appropriate immediate and long term therapy can be instituted. On the one hand variceal haemorrhage may be the final episode in a progressively deteriorating clinical disease state; alternatively, it may be a single potentially life threatening episode in a patient who can otherwise expect several further years of good quality life. In an understandable attempt to prevent unnecessary discomfort and suffering to the former we must be careful not to overlook or ignore the latter.

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