Leading Article

Management of haematemesis in a district hospital – can we do better?

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Upper gastro-intestinal bleeding probably accounts for 50,000 admissions each year to hospitals in England & Wales (Johnston *et al.*, 1973). Most of these patients are treated in district general hospitals (DGH), which seldom report their results. A recent study of DGH admissions for upper gastro-intestinal bleeding (Madden & Griffith, 1986) found that 15% of patients died. This is three times the death rate reported from Oxford (Berry *et al.*, 1984) and well above the 9% reported from the General Hospital in Birmingham (Allan & Dykes, 1976).

Is there room for improvement, or are DGH patients different from those treated in teaching hospitals? Although patients over 60 years are much more likely to die (Dronfield, 1979; Allan & Dykes, 1976), they made up 69% of the Oxford series as compared to 59% of DGH patients. The cause of bleeding also influences the risk of death (Conn, 1981) but the spectrum of pathology was similar in all three series with peptic ulcers (mostly duodenal) accounting for half or more of admissions; oesophageal varices, a particularly lethal problem, were rare. The admission policy in each unit was the same, with patients being admitted by a medical team which was responsible for arranging a surgical consultation when necessary. However, treatment differed in at least one important respect; only 10% of the DGH patients underwent surgery to stop bleeding, compared to 19% in Oxford and 32% in Birmingham.

The higher operation rates in Oxford and Birmingham were associated with operative mortality rates of 13% and 9% respectively, which contrast sharply with the 41% operative mortality rate in DGH patients. At first sight this simply suggests surgery for bleeding in a DGH is dangerous, but its limited use may actually have increased the overall death rate, for although post-operative complications caused a quarter of all hospital deaths, continued bleeding not treated by operation accounted for a further quarter. Surgery may thus have been used too seldom, and too late, leading to fatal complications in hypovolaemic elderly patients while allowing an equal number to bleed to death, although a minority of operative deaths were clearly due to technical failure, such as suture line leakage. Almost all operations were performed by consultants or senior registrars and very few by registrars. The more experienced surgeons generally operated for more difficult problems and did not achieve lower mortality rates. Less than half of all hospital deaths appeared to be unavoidable, due to causes such as pneumonia, liver failure, stroke, carcinomatosis, or heart failure: these were not associated with continued or recurrent bleeding.

If deaths from bleeding alone, as well as those following surgery are to be reduced, then selection and preparation of patients for operation must be meticulous. This needs close co-operation between physician and surgeon, which may not be achieved by the conventional practice (Thomas *et al.*, 1980) of admitting cases of haematemesis and melaena to a general medical ward. On the other hand, a surgical ward is also unsuitable as over one third of patients have medical problems which complicate the management of their bleeding (Madden & Griffith, 1986) and only 10–32% will actually need an operation at all (Madden & Griffith, 1986; Berry *et al.*, 1984; Cotton *et al.*, 1973; Allan & Dykes, 1976). Cotton & Russell (1977) have suggested that for the first 72 hours, when continued or recurrent bleeding needs early detection, intensive care unit monitoring would be appropriate. But intensive care unit beds are expensive and in short supply, while three-quarters (MacLeod & Mills, 1982) of patients stop bleeding permanently around the time of admission so intensive monitoring turns out to have been unnecessary. A more logical approach has been reported by Hunt’s group in Melbourne (Hunt *et al.*, 1983) which admits patients directly to a haematemesis and melaena unit run jointly by a physician and a surgeon and has subsequently ex-

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experienced a decline in overall mortality from 8.5% to 5.8% over a decade, despite an increasing proportion of patients aged over 60 years. This approach allows prompt endoscopy to identify patients who are suitable for early discharge (erosions, oesophagitis, or normal endoscopy) or for particularly careful monitoring (ulcer with visible vessel or adherent clot or active bleeding (Griffiths et al., 1979), elderly patients who have been shocked (Bornman et al., 1985), and oesophageal varices (Spence et al., 1985)). Although endoscopy has not demonstrably affected mortality from upper gastrointestinal bleeding (Conn, 1981) it permits injection sclerotherapy to replace surgery in most patients who bleed from varices while both diagnostic and therapeutic endoscopy can be performed more quickly and safely in a unit where they are used often. Close surgical involvement should also allow urgent operations to be dove-tailed with elective lists, ensuring consultant anaesthetic and surgical cover, but its most important potential benefit may simply be that it ensures constant medical and surgical consultation with frequent review of the treatment policy in each individual case, for this is what seemed to be lacking in the management of the district general hospital patients.

References


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