Medical Memoranda

Late Haemorrhage from the Duodenal Stump after Gastrectomy


Upper gastrointestinal haemorrhage is a common occurrence, peptic ulcer accounting for most cases (Jones, 1947, 1952; Jones and Gumner, 1960). Recurrent bleeding after definitive gastric surgery is naturally less common, but surprisingly it is of the order of 10% (Brugschaard, 1946; Wilkins, Rogers, and Strachley, 1957; Levrat, Lambert, and Martin, 1962). In recent years a few papers have appeared describing the causative lesion (Palmer, 1962; Coe, McLaughlin, and Walker, 1964).

Two unusual cases of bleeding from the duodenal stump some time after Polya partial gastrectomy are described.

CASE 1

A man aged 69 was admitted to hospital on 17 December 1961 with haematemeses. In 1958 he had a perforated prepyloric ulcer, which was treated by simple suture. Laparotomy was performed for continuous bleeding despite transfusion. There was an ulcer in the posterior wall of the first part of the duodenum \( \frac{3}{4} \) in. (1.3 cm.) in diameter and adherent to the pancreas. The duodenum was divided beyond the ulcer, and the duodenal stump was closed with inner catgut and outer silk in Nissen fashion. An antecolic Polya partial gastrectomy was performed. He made an uneventful postoperative recovery, and was discharged home on 3 February 1962.

He was readmitted on 17 April 1962 with haematemeses and melaena. A diagnosis of haemorrhage from an anastomotic ulcer was made. The bleeding continued despite adequate blood replacement. At laparotomy the anastomotic site appeared normal to inspection. The liver and spleen were normal. There was no Meckel’s diverticulum. The gastric remnant was opened, but there was no ulceration in it or in the efferent loop. On 25 April bleeding recurred, and despite transfusion a further laparotomy was required. The gastric remnant was reopened and the afferent and efferent loops were inspected from within, but no source of bleeding was located. A speculative subtotal gastrectomy was performed. On 1 May he developed a gastric fistula, subsequently had a haematemeses, and died on 3 May. At necropsy a tiny aneurysm of the gastroduodenal artery in the duodenal stump was found.

CASE 2

A woman aged 75 was admitted to hospital on 12 April 1964 with haematemeses and melaena. This did not respond to blood transfusion. A provisional diagnosis of a bleeding peptic ulcer was made, and laparotomy was performed on 17 April. A bleeding chronic ulcer in the posterior wall of the first part of the duodenum was located. The ulcer was “pinched off” the pancreas, and the duodenal stump was closed in two layers with thread. An antecolic Polya partial gastrectomy was carried out. She made an uneventful postoperative recovery, and was discharged home on 11 May 1964.

On 31 July she was readmitted with haematemeses, and this responded to transfusion, but on 8 August she suddenly collapsed after a massive melaena and a haematemeses of over 500 ml. After resuscitation laparotomy was performed. There was no evidence of an anastomotic ulcer. The liver and spleen were normal. The duodenal stump was indurated, and on X-ray this a piece of thread was removed from the lumen. There was a small ulcer containing a bleeding vessel, and this was underrun with catgut. Her postoperative recovery was uneventful until five days later, when she developed lobar pneumonia and died. Necropsy confirmed right lobar pneumonia. The site of the anastomosis was normal.

DISCUSSION

Causes of postgastrectomy bleeding fall into two main groups, early and late. The bleeding occurring in the immediate postoperative period is best regarded as a complication of the operation—for example, a bleeding vessel at the suture line, traumatic oesophagitis associated with the use of a Ryle’s tube, necrosis of the jejunum, sepsis at the anastomosis, and jejuno gastric intussusception (Smith, 1955; Pearce, Jordan, and De Bakey, 1957; Wilkins et al., 1957; Palmer, 1962; Coe et al., 1964). In some cases an erroneous initial diagnosis of peptic ulcer may lead to injudicious surgery—for example, in blood dyscrasias, portal hypertension with oesophageal varices, and the Mallory-Weiss syndrome (Mallory and Weiss, 1929). It is not an uncommon experience after “speculative” gastrectomy to find the bleeding to be due to a missed ulcer in the gastric remnant. Late bleeding can occur between three months and 34 years after gastric resection (Palmer, 1962). It is interesting to note that in most of these cases the initial resection was performed for a bleeding ulcer.

It is known that the use of unabsorbable suture material can cause bleeding from its later extension. This presumably was the case in the second patient. In the first patient the cause was a tiny aneurysm, which may have been due to the transfixion and weakening of the wall of the gastroduodenal artery by the catgut suture. Alternatively, the initial bleeding vessel which was underrun may have formed the aneurysm. A similar case of postgastrectomy bleeding was reported by Tanner (1954), but in his case the ulcer had not been excluded from the gastrointestinal tract.

Rare causes of postgastrectomy haemorrhage reported in the literature have been due to the Mallory-Weiss syndrome, leiomyosarcoma and adenomatous of the duodenum, posterior duodenal ulcer left behind, ulcerative and polypoidal lesions in the gastric remnant, and dissecting aneurysm of the aorta leaking into the duodenum (Tanner, 1964).

As the mortality among cases of bleeding after gastric resection is high, it is suggested that where other causes of the bleeding have been excluded at laparotomy the duodenal stump should be deliberately opened and inspected. Nothing is so rewarding as locating the site of bleeding and ligating or suturing the bleeding vessel.

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REFERENCES