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AN UNUSUAL CAUSE OF HAEMATEMESIS AND MELAENA

RALPH GER, M.B. (CAPE TOWN), F.R.C.S., F.R.C.S.E., *Cape Town*

When the surgeon operates on a case of serious gastro-duodenal haemorrhage and fails to demonstrate the source, he is faced with a difficult decision. Most will agree with Maingot[1] that 'blind' gastrectomy is the procedure of choice, on the grounds that the bleeding arises from multiple acute erosions which are neither visible nor palpable. Attention is drawn here, however, to the biliary tract as a possible source of haemorrhage.

CASE REPORT

A Coloured male aged 53 was admitted with a 2-month history of epigastric pain and loss of weight. The pain recurred intermittently and was severe enough to cause fainting. At times it had been accompanied by vomiting and a few days before admission he had suffered a haematemesis consisting of about 5 cupfuls of bright red blood. For 3 weeks he had noticed that his stools had become black in colour and for a similar period he had noticed dypsnoea on exertion and marked weakness.

The relevant findings on examination were clinical anaemia, confirmed by a haemoglobin estimation of 4·5 g.%, a tender, smooth, firm liver palpable 2 finger-breadths below the costal margin, epigastric tenderness, and altered blood in the stool.

Peptic ulceration was considered to be the most likely cause of the gastro-duodenal haemorrhage and it was agreed that surgical treatment should be carried out as soon as the patient's general condition permitted.

First Operation

On laparotomy (upper mid-line incision) the small and large bowel were found to be full of blood; they appeared to be normal. The stomach was normal. There was superficial scarring of the anterior wall of the first part of the duodenum, with 'cayenne pepper' appearance on light friction, indicating a healed duodenal ulcer. The gall-bladder was tense, reddened and bound down by adhesions—thought to be a subacute cholecystitis.

A Polya ante-colic partial gastrectomy was carried out. The duodenum was inspected after transection and fresh blood was seen to emerge from the lumen—although an ulcer crater was not seen, it was thought that the duodenum was almost certainly the source of the bleeding. It was closed with some difficulty partly on account of the adhesions from the cholecystitis and partly on account of the build of the patient, who was very large and fat.

It was decided that cholecystectomy should not be carried out, as the general condition of the patient was only fair. Accordingly, omentum was brought up to surround the gall-bladder and the abdomen closed.

Post-operative Course. For the following 2 weeks the patient did well, and was being considered for discharge when on the 15th post-operative day he developed severe epigastric pain. This was followed by a melaena stool and the haemoglobin dropped to 8 g.%. The blood was replaced, but the following day he had a further severe haematemesis and melaena requiring 4 pints of blood. Bleeding continued intermittently, more being lost per rectum than by mouth. Before a big bleed, he nearly always complained of severe epigastric pain. He was treated by sedation and blood replacement during the bleeds and the Meulengracht regime in the intervals. By the 28th post-operative day large bleeds were still occurring and it was decided to carry out a laparotomy.

Second Operation

The old incision was excised. The anastamosis appeared to be in order and no other abnormality could be discovered save for the distended gall bladder. This was explored, and when the organ was opened a large quantity of bright arterial blood escaped and continued to do so. The tenseness of the viscus was then seen to be due to the fact that it was full of clots, recent and old. The common duct appeared palpably and visibly normal. Cholecystectomy was carried out as rapidly as possible.

The *post-operative course* was uneventful, save for a minor degree of wound sepsis. When seen in the *follow-up* clinic the patient was well and had suffered no recurrence of bleeding.

Pathological Report on Gall-bladder

'The specimen consisted of the opened gall-bladder. It was 12 cm. in length. The wall showed a generalized thickening to about 3-5 mm. and the mucosa was largely destroyed. An irregularly shaped mass of tissue 5 cm. in its greatest length was also present.

'The section from the detached irregular mass consisted of blood clot with some few epithelial cells.

'The portion from the region of the neck showed a spreading poorly differentiated adenocarcinoma, while others from the adjacent body and fundus showed a diffuse infiltration of malignant cells throughout the wall in the form of a "carcinoma simplex".

'In addition there was a marked secondary infection.'

DISCUSSION

Aird[2] states that 'severe haemorrhage may take origin in the biliary tract and even in an apparently normal biliary tract' but does not elaborate further.

Judd,[3] in 1922, described 4 cases of bleeding duodenal ulcer associated with cholecystitis. As in 3 of these gastro-enterostomy was performed as well as cholecystectomy, it is difficult to conclude that the gall-bladder was the source of the bleeding, for a percentage of duodenal ulcers will heal with the short-circuit operation. In a review of all cases of gall-bladder disease at the Mayo Clinic during 1918–1919, Judd mentioned haemorrhage as a symptom in 2·43%. He quotes Crispin, who found that 5% of his series of cases of gall-bladder disease had a history of gastro-duodenal bleeding.

Deaver,[4] in 1914, reported a case of profuse haematemesis in acute cholecystitis where the blood passed down the common duct to regurgitate into the stomach.

It is rare in recent literature to find cholecystitis mentioned as a possible cause of haematemesis or melaena. Reference to tumour as a cause is even rarer, although one author[5] states, 'Haemorrhage from an ulcerating tumour may be a prominent symptom'. Perhaps it would be advisable in cases where a bleeding point is not demonstrated at operation to investigate the biliary tract more thoroughly—aspiration of the gall-bladder or common duct may on occasions be a profitable procedure. Certainly in the case here described, it would have saved the patient a gastrectomy under emergency conditions.

It would seem that in cholecystitis the bleeding would result from intense congestion of the organ, whereas in tumour actual invasion of the vessels would occur. In this case the growth was invading the cystic artery at the neck of the gall-bladder, the blood then passing down the common duct into the bowel.

Unusual features about this neoplasm of the gall-bladder were the sex of the patient, the absence of calculi in the viscus (present in 90% of cases of carcinoma), and the absence of any visible direct or metastatic spread despite a diffusely spreading, poorly differentiated type of growth.

SUMMARY

1. A case of carcinoma of the gall-bladder is described, presenting as haematemesis and melaena. Confusing features were a healed duodenal ulcer and the presence of a supposed subacute cholecystitis.

2. Disease of the biliary tract as a cause of serious bleeding from the gastro-intestinal tract is discussed and the literature briefly reviewed.

3. The suggestion is made that in cases of gastro-intestinal haemorrhage where the bleeding point cannot be demonstrated at operation, before 'blind' gastrectomy is carried out aspiration of the gall-bladder and common duct should be considered.

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REFERENCES

1. Maingot, R. (1955): *Abdominal Operations*, 3rd ed., p. 334. London: H. K. Lewis.
2. Aird, I. (1957): *Companion in Surgical Studies*, 2nd ed., p. 276. Edinburgh: Livingstone.
3. Judd, E. S. (1922): Ann. Surg., **75**, 459.
4. Deaver, J. B. (1914): Surg. Gynec. Obstet., **18**, 294.
5. Lewis, D. (1955): *Practice of Surgery*, vol. 7, chap. 2, p. 41. Hagerstown, Md. W. F. Prior.