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Learning from errors

Scoping a perforated bleeding peptic ulcer: learning points

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Summary

Peptic ulcer perforation and haemorrhage is not unusual as a complication of peptic ulcer disease. In the older patientspresentation can be dramatic and atypical. The authors are presenting a case of duodenal ulcer perforation and haemorrhage which was misdiagnosed as a gastric malignancy and thus failure to have *Helicobacter pylori* eradication, recurrence with complication and hesitancy in surgical intervention due to initial label of malignancy.

BACKGROUND

We decided to write this case to convey the message that every patient is a new book and we must not be carried away by a label of previous diagnosis which could be wrong as to err is human.

CASE PRESENTATION

A 78-year-old Saudi man presented with recurrent vomiting for the past 4 days. For the first 3 days vomitus contained whatever patient swallowed and followed 2–3 h after meals. On day 4, the patient vomited fresh blood and nasogastric aspiration confirmed the same. Patient was haemodynamically unstable and improved after resuscitation in the emergency department. Examination revealed scaphoid abdomen without any organomegaly. Haemoglobin was 9.8 gm/dl (normal 14–16 gm/dl). Renal and liver function tests were normal as was coagulation profile. Supine chest x-ray was normal and supine abdominal x-ray revealed suspicious air around liver (figures 1 and 2). Decubitus film of abdomen was requested which revealed free air in abdominal cavity (figure 3) after comparison with supine film (figure 2). Patient had a history of upper gastrointestinal bleed 4 years back and oesophagogastroduodenoscopy was reported as gastric ulcer. Biopsy was taken and histopathologist reported it as adenocarcinoma. The patient did not attend any hospital thereafter. Surgical team was informed who discharged the patient as uppergastrointestinal bleed likely from tumour and advised oesophagogastroduodenoscopy. Patient was taken for oesophagogastroduodenoscopy which revealed a

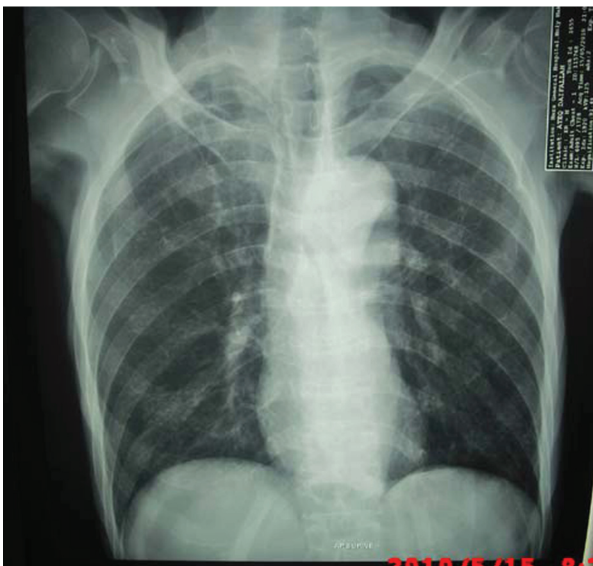

Figure 1 Supine chest x-ray showing no air under the diaphragm.

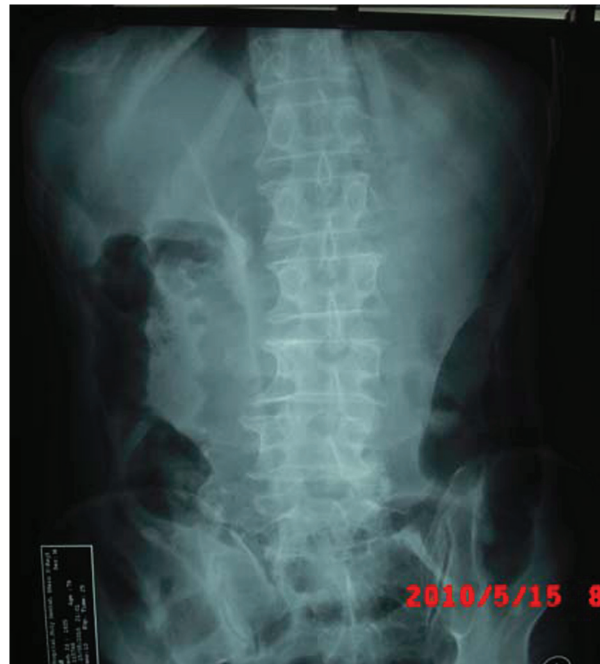

Figure 2 Abdominal x-ray showing air around liver.

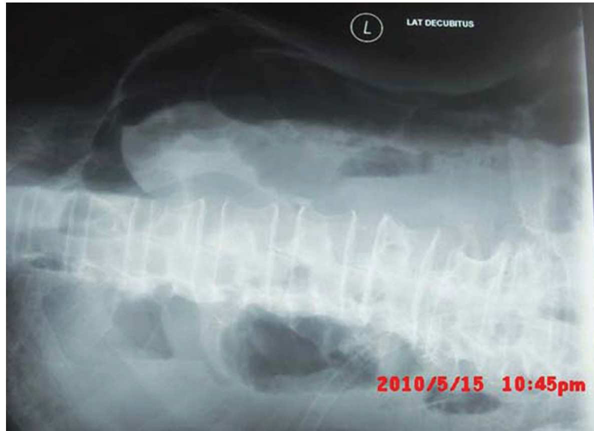

Figure 3 Decubitus film showing free air in abdomen.

large ulcer in first part of duodenum covered with necrotic material and slough. Abdomen became distended and procedure was abandoned and repeat x-ray revealed huge pneumoperitoneum (figure 4). Patient was handed over to surgical team who did emergency laprotomy and repaired the defect. Peritoneal fluid was sent for cytology which revealed only inflammatory cells. Patient was discharged 1 week later in a stable condition. On follow-up 4 weeks later, patient was ambulatory, had no complaints and no mass in abdomen. CT scan was normal and histopathology slides were reviewed which did not reveal any feature of malignancy.

INVESTIGATIONS

X-rays of abdomen.

DIFFERENTIAL DIAGNOSIS

- Perforated bowel
- Gastric outlet obstruction.

TREATMENT

Surgical exploration and repair of defect.

OUTCOME AND FOLLOW-UP

Improved and ambulatory.

DISCUSSION

The natural history of peptic ulcer disease (PUD) highlights the particular vulnerability of the older patient to PUD and its complications, and focussed attention on targeted intervention in this group.[1] Irrespective of *H pylori* status the recommendation of Maastricht 2–2000 Consensus Report is that eradication therapy is strongly recommended in all patients with PUD, low-grade gastric mucosa-associated lymphoid tissue lymphoma, atrophic gastritis and in those following gastric cancer resection. The report also strongly recommends *H pylori* eradication in first-degree relatives of patients with gastric cancer and on demand following appropriate consultation.[2] Our case was discharged on symptomatic treatment due to histopathological report of gastric malignancy, poor prognosis and poor outcome of surgical intervention.The family left the patient at home and did not follow-up, nor did seek second opinion. This

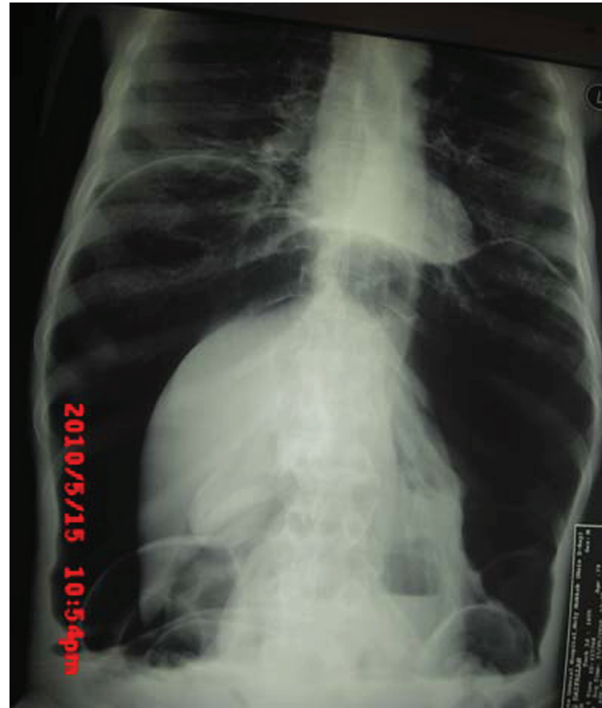

Figure 4 Massive pneumoperitoneum after endoscopy.

negligent attitude from treating doctors and family led to recurrence of ulceration and its expected complications. The main goals for treating PUD in old age are to reduce recurrence of the disease and to prevent complications, especially bleeding and perforation.[3] Brock *et al*,[4] studied the effect of health interventions on the outcome of PUD in older patients, the group, identified by Higham *et al*,[5] as having the higher risk for the development of PUD complications. Peptic ulcer bleeding is a frequent and dramatic event with both a high mortality and a substantial cost for healthcare systems worldwide. It has been found that age is an independent predisposing factor for gastrointestinal bleeding, with the risk increasing significantly in individuals aged >65 years and increasing further in those aged >75 years. Indeed, bleeding incidence and mortality are distinctly higher in older patients, especially in those with co-morbidities.[6] Bleeding and perforation were present concomitantly in our patient but mistaken as tumour bleed and denied surgical intervention at the start. Clinical symptoms of peptic ulcer in older patients are typical, co-morbidities are common, ulcers are larger and often located near cardia instead of pylorus and more frequent and severe complications are seen.[7] Our patient presented with recurrent vomiting which is explained by the pyloric spasm due to ulcer. Silent abdomen is well known in acute abdomen in older patients and delay in diagnosis. Latter and the complications increase mortality in this patient population.[8] Endoscopic haemostasis is a safe mode of treatment in older patients[9] and thus the procedure has to be performed as early as possible. However, the procedure is contraindicated with suspected perforation and conservative treatment might help. The 'acute abdomen' is still an appreciably frequent cause of death in sudden, unexpected deaths in the older age group. Some of the deaths may be prevented with an early diagnosis.[10] A high level

of vigilance and early attention to an 'acute abdomen' by medical practitioners is therefore advocated.

Learning points

- A high level of vigilance and early attention to an 'acute abdomen in older patients' by medical practitioners is advocated to avoid delay in diagnosis and lifesaving intervention.
- All ulcers must be treated with eradication therapy and repeat endoscopy done after 4–6 weeks.
- Histopathologists need to be careful in issuing reports of malignancy which might have medicolegal implications.
- Gastroenterologists need to be careful in taking biopsy of an ulcer on first endoscopy without a trial of eradication therapy and must ensure outpatient follow-up and follow-up endoscopy for disease progression and restrain from doing the procedure in a suspected perforation.
- While explaining the nature of illness to the family, lot of caution is needed to avoid mistakes as that of our case and thus medicolegal problems.
- Surgeons need to treat the patient and not the previous diagnosis and every patient must be considered as a new book.

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Competing interests None.

Patient consent Obtained.

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