

Pneumoperitoneum in a perforated gastric ulcer

Bárbara Lobão

Department of Internal
Medicine, Centro Hospitalar de
Setubal, Setubal, Portugal

Correspondence to

Dr Bárbara Lobão,
babilobao@hotmail.com

DESCRIPTION

A 78-year-old woman with a history of peptic ulcer and recent use of non-steroidal anti-inflammatory medication presented to the emergency department with a 3-day history of progressively worsening abdominal distention and pain. She had been seen at the same emergency department on the day before, and was treated symptomatically with intravenous fluids and promethazine and discharged with a presumptive diagnosis of gastroenteritis.

The patient was haemodynamically unstable and improved after resuscitation in the emergency department.

Abdominal examination revealed notable distention, tympany and voluntary guarding with signs of peritonitis.

Plain-film radiographs of the chest, as well as an abdominal x-ray obtained with the patient in a supine position (figures 1 and 2), revealed evidence of a pneumoperitoneum with gas under the infra-diaphragmatic region. The findings were highly suggestive of gastric perforation.

The patient was handed over to the surgical team who gave prophylactic antibiotics. Owing to the patient's instability, an emergency laparotomy was performed and the defect repaired.

A biopsy of the ulcer revealed it to be a case of peptic ulcer disease.

However, the patient developed severe nosocomial infection with septic shock and died shortly after the surgery.

Peptic ulcer perforation in the older patients can present with atypical symptoms and be associated to increased mortality in this patient population.^{1 2}

Death rate after surgery for perforation of peptic ulcer is 3–5 times higher in the elderly (up to 50%). This can be explained not only by the occurrence of concomitant medical diseases but also by difficulties in making the right diagnoses, resulting in a delay >24 h.³

A high level of vigilance and early attention to an 'acute abdomen' in the elderly is therefore advocated.⁴

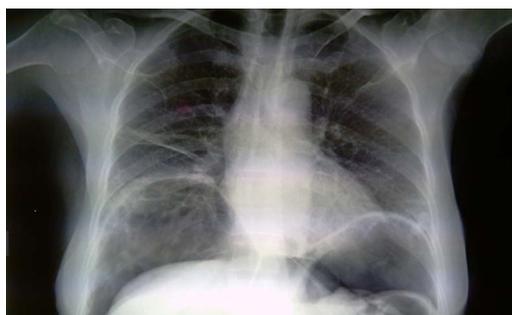


Figure 1 Supine chest x-ray showing air under the diaphragm.



Figure 2 Abdominal x-ray showing air under the diaphragm.

Learning points

- ▶ In the older patients, peptic ulcer perforation is not unusual as a complication of peptic ulcer disease and can have an atypical presentation.
- ▶ A high level of vigilance and early attention to an 'acute abdomen in older patients' are advocated to avoid delay in diagnosis and life-saving intervention.
- ▶ Non-steroidal anti-inflammatory medications must be used with extreme caution in the older age group.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Zhou J, Lei W, Liu B, *et al.* Analysis of clinical and gastroscopic characteristics in 139 elderly patients with peptic ulcer. *BIOSIS Prev Wuhan Daxue Xuebao (Yixue Ban)* 2010;31:223–6.
- 2 Watanabe T, Chiba T. Clinical features of peptic ulcer disease in the elderly. *Nippon Rinsho* 2002;60:1499–503.
- 3 Feliciano DV, Bitondo CG, Burch JM, *et al.* Emergency management of perforated peptic ulcers in the elderly patient. *Am J Surg* 1984;148:764–7.
- 4 Ng CY, Squires TJ, Busutil A. Acute abdomen as a cause of death in sudden, unexpected deaths in the elderly. *Scott Med J* 2007;52:20–3.

To cite: Lobão B. *BMJ Case Reports* Published online: [please include Day Month Year] doi:10.1136/bcr-2012-007915

Copyright 2013 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow