Oesophageal rupture arising as a complication of acute appendicitis in a child

Kenneth Wong and Gerard Roy

To the Editor: Boerhaave's syndrome is a rare condition in which increased intra-oesophageal pressure associated with forceful vomiting leads to spontaneous oesophageal rupture. Although the condition mostly affects middle-aged men,[1] we present here a case arising as a complication of appendicitis in a child.

A 10-year-old boy presented with a 4-day history of abdominal pain, diarrhoea and bloodstained vomiting. He was febrile and tachycardic, with a mildly distended abdomen but no peritonism. Chest and abdominal x-rays were normal.

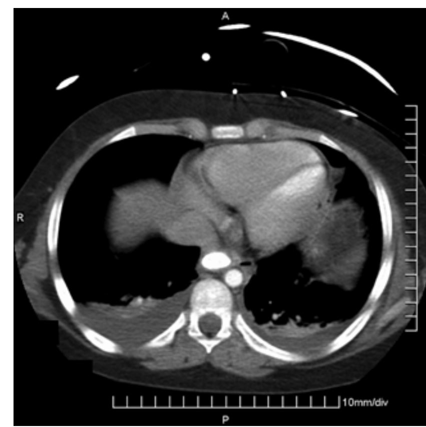
Over the next 6 hours, despite being given 4 litres of normal saline intravenously, the patient became hypotensive, oliguric and hypoxic, with increased abdominal guarding. A perforated appendix was suspected and an urgent laparotomy was planned. A preoperative chest x-ray revealed a large left-sided hydropneumothorax causing tracheal deviation. Insertion of an intercostal catheter immediately returned 600 mL of haemoserous fluid. At laparotomy, amid gross purulent contamination, a perforated appendix was removed. A subsequent computed tomography (CT) scan of the thorax showed contained mediastinal contrast extravasation with an associated air/fluid level from the lower oesophagus on the left side (Box), suggesting oesophageal rupture and establishing Boerhaave's syndrome.

Intravenous antibiotics and nasogastric and pleural drainage were instituted. A repeat CT scan of the thorax 3 days later showed no further mediastinal contrast extravasation. The child improved clinically until spiking high temperatures on the seventh day postoperatively. A chest x-ray showed a left-sided pleural effusion. Thoracoscopy revealed a loculated empyema. This was managed by a formal decortication via a left lateral thoracotomy. The patient was discharged after 2 weeks.

Vomiting is a common presenting symptom in acute appendicitis. Yet there is only one previously reported case of Boerhaave's syndrome secondary to acute appendicitis.[1] Therefore, this unusual complication of acute appendicitis may be missed. Without treatment, 100% mortality is expected.[2]

In retrospect, it was evident that our patient showed the classical clinical symptoms of Boerhaave's syndrome: a history of prolonged haematemesis, systemic compromise and a left-sided tension hydropneumothorax.[2,3] As an initial chest x-ray may be normal, a repeat x-ray is worthwhile in any patient with prolonged vomiting. If clinical suspicion persists, a CT scan of the thorax, which is a more sensitive and specific test for detecting oesophageal rupture, is advisable.[2,3]

Computed tomography scan of thorax



The management of Boerhaave's syndrome involves initial resuscitation with broad-spectrum antibiotics, nasogastric intubation and pleural drainage.[2-5] In recent literature, urgent operative intervention has been recommended to control communication between the oesophagus and mediastinum.[2,3,5] In our case, we pursued non-operative management based on radiological evidence of a small, contained mediastinal collection and clinical improvement after pleural drainage. The present case highlights a rare complication of a common surgical condition and suggests that careful non-operative management may be successful.

Kenneth Wong, Registrar in General Surgery
Gerard Roy, Paediatric Surgeon
John Hunter Children's Hospital, Newcastle, NSW.
kennethwo@yahoo.com

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Doctors, prison torture and the "war on terror"

Niyi Awofeso

To the Editor: The arrest and imprisonment of 17 Australian-based suspected terrorists on 8 November 2005 underscores a need for Australian prison medical workers to implement strategies for either preventing or following up prison torture incidents.

The definition of prison torture is problematic, not least because modern prisons evolved to sequester torture practices from public view.[1] I define prison torture as custodial practices that: increase the likelihood of extreme deprivation in prison settings; facilitate traumatic stress on prisoners, resulting from beatings or excessive force used more as punishment than as restraint; result in inadequate or unaffordable health care; and/or expose prisoners to heightened risk of interpersonal violence and sexual assault.

Advocates of prison torture regard it as a means of quickly extracting information, humiliating prisoners to the extent of weakening their resolve, and sending a "tough on crime" message to potential terrorists. However, as the well publicised Abu Ghraib prison incidents in Iraq demonstrate, torture practices diminish the moral clout of implicated military physicians and governments.[2]

Physical and psychological scars from torture commonly lead to depression, major disconnection of victims from friends and family, and occasionally suicide. Confessions obtained under torture conditions are inadmissible in modern legal systems. Moreover, graphic torture incidents may be framed by terrorist organisations as recruitment tools.

The 1975 World Medical Association Declaration prohibits doctors' involvement in torture.[3] Unfortunately, active medical complicity in prison torture did not end with the Nazi era.[4] While Australian doctors have so far not been directly implicated in prison torture practices,[5] the inability (or unwillingness) of Australian prison doctors to recognise and promptly speak out on such incidents in the past has been unfortunate. Prison torture practices in which doctors are actively or passively involved diminish the standing of the medical profession, whose members are expected to be advocates for people at risk of torture.