CONCLUSION

Although conventional spacers are optimal for use with a MDI in children with asthma, these are frequently unaffordable or unavailable. A plastic 500 ml cold-drink bottle can be adapted relatively easily to function as a spacer. The widespread availability of this bottle and its demonstrated efficacy as a spacer offers patients a viable method for delivery of aerosolised medication for asthma. Modification and use of a bottle as a spacer should form part of an asthma education programme.

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BOERHAAVE'S SYNDROME — RUPTURED OESOPHAGUS, WITH MEDIASTINAL ABSCESS

A 79-year-old woman experienced chest pain following a meal of fish, shortly before boarding a flight from London to Cape Town. The pain persisted, and abruptly became more severe during the flight. The pain was largely retrosternal with radiation to the back, and was exacerbated by swallowing. A history of a few previous similar episodes was obtained. She was treated by a doctor on board the flight with injections of opiates, analgesics and diazepam. In a thorough referral note, headed with the address 'Somewhere over the Atlantic', the doctor indicated his suspicion of an impacted food bolus and oesophageal spasm.

On arrival in Cape Town the patient was transferred directly to the emergency unit of a tertiary hospital. On admission she complained of severe chest pain radiating to the back. There was no history of vomiting, haematemesis, melaena or abdominal pain. There were no cardiorespiratory symptoms. The only regular medications she received were a thiazide diuretic and etilroxin. Occasional alcohol was taken, and she did not smoke.

On examination she was distressed, drowsy and apyretrial, and slightly cyanosed and dehydrated. The heart and lungs were clear. The blood pressure was 130/80 mmHg, the pulse rate was 100/min, and the jugular venous pressure was 2 cm. Surgical emphysema was noted in the neck. The abdomen was soft. Apart from slight confusion no abnormalities were noted on CNS examination. Biochemical values were as follows: sodium 134 mmol/L (normal 135-145 mmol/L), potassium 4.2 mmol/L (normal 3.5 - 5.5 mmol/L), urea 10.9 mmol/L (normal 1.7 - 6.7 mmol/L), and creatinine 174 mmol/L (normal 75 - 115 mmol/L). The blood glucose level was 7.1 mmol/L and the haemoglobin concentration 14 g/dl. An ECG was normal.

A chest radiograph (Fig. 1) revealed surgical emphysema, bilateral basal opacification and a pneumomediastinum. Computed tomography (Fig. 2) showed surgical emphysema, bilateral pleural effusions, and a ruptured right oesophageal wall opening into a large cavity in the mediastinum. This was also seen on a subsequent contrast swallow (Fig. 3).

Oesophagogastroscopy revealed a 3 - 4 cm ragged tear of the oesophageal wall at approximately 30 cm. No tumour, oesophagitis or foreign body was noted, but there was a food bolus impacted at the oesophagogastric junction. A small hiatal hernia and associated stricture were present.

A left posterolateral thoracotomy was performed through a bed of the left 6th rib. This revealed turbid fluid in both left and right pleural spaces, with a florid inflammatory mediastinitis.
Fig. 1. Frontal chest radiograph demonstrating bilateral basal lung opacification (long arrows) and surgical emphysema (curved arrow). Also notice the aortic knuckle (short arrow) outlined by a pneumomediastinum elevating the mediastinal pleura (arrowheads).

Fig. 2. Computed tomogram demonstrating a defect (open arrow) in the right wall of the oesophagus (medium arrow) leading to a large gas- and fluid-containing cavity (long arrow) in the mediastinum. Large bilateral pleural effusions are also present.

Fig. 3. A contrast swallow shows a leak (broad arrow) from the right wall of the oesophagus into the mediastinal cavity (medium arrow). and necrotic mediastinal tissue. The tear of the right wall of the oesophagus was repaired. A nasojejunal feeding tube and mediastinal and pleural drains were placed.

After a stormy 8 weeks in hospital, the patient was discharged to a convalescent home.

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