A gynaecological cause of spontaneous haemopneumothorax

Introduction

Spontaneous haemopneumothorax is defined as the accumulation of blood and air within the pleural space in the absence of trauma. It is uncommon but clinicians should have a high index of suspicion as it may present with a life-threatening situation including hypoxia and/or circulatory collapse. It may be secondary to thoracic malignancy, coagulopathies, pulmonary infections (e.g. *Pneumocystis jirovecii* pneumonia), rupture of vascularised bullae or aberrant blood vessels, extra-medullary haematopoiesis and thoracic endometriosis syndrome.

Discussion

This article discusses an uncommon case of spontaneous haemopneumothorax. Thoracic endometriosis syndrome encompasses four separate entities: catamenial pneumothorax, catamenial haemothorax, catamenial haemoptysis and lung nodules.

Interestingly, catamenial haemothorax is relatively rare representing only 14% of cases of thoracic endometriosis syndrome (Joseph and Sahn, 1996). Catamenial pneumothorax is much more common. In addition, the vast majority (92%) of cases of thoracic endometriosis syndrome have right hemithorax involvement, as opposed to 5% left and 2% bilateral involvement (Korom et al, 2015). This predilection for right hemithorax involvement is thought to be because peritoneal fluid moves around the abdomen in a clockwise fashion from the paracolic gutter to the right subdiaphragmatic region. Congenital and acquired defects in the diaphragm then allow passage of endometrial material into the thorax (Alifano et al, 2007).

Gonadotropin-releasing hormone analogues tend to be the most efficacious medical therapy, providing a rapid response and improvement in symptoms

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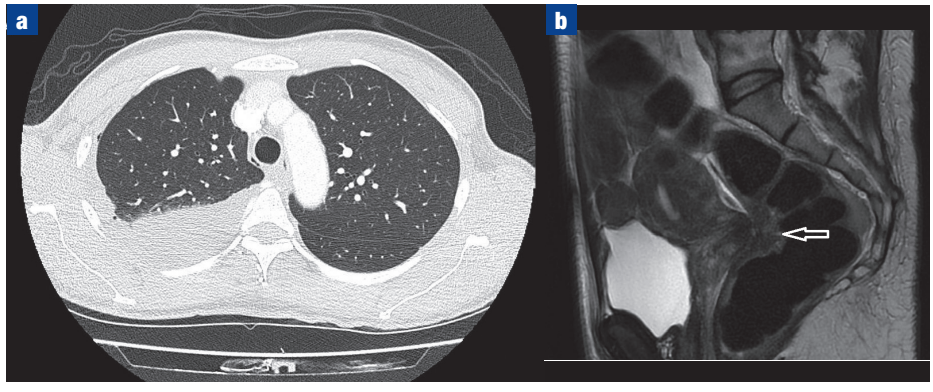
Figure 1. **a.** Computed tomography scan of the chest demonstrating a right-sided pleural effusion with small pockets of gas within the pleural space and pneumomediastinum. **b.** Magnetic resonance imaging with low T2 signal intensity plaque on the back of the uterus involving and tethering the adjacent rectum (arrow).



CASE REPORT

A 46-year-old woman presented with a 3-month history of increasing shortness of breath, associated with a dry cough, night sweats, weight loss, chest pain and constipation. There was no haemoptysis. She had recently been prescribed salmeterol/fluticasone 25/250 μg and salbutamol as required for asthma. She had had a supraumbilical hernia repair. Previous history consisted of alopecia and endometriosis. She worked as a sales assistant and had never smoked. Examination was unremarkable except for decreased breath sounds throughout the whole right side of the chest with dullness to percussion.

Chest radiography and subsequent computed tomography scan of the chest, abdomen and pelvis confirmed a large right hydropneumothorax (*Figure 1a*). They demonstrated a small amount of pneumomediastinum, and a left adnexal mass with tethering of the rectum to the back of the uterus along with ascites. Magnetic resonance imaging of the pelvis showed no suspicious ovarian mass but free fluid in the pelvis of high signal on T1 was seen, in keeping with haemorrhagic fluid, in addition to tethering of the uterus to the rectum (*Figure 1b*). A chest drain was inserted and over a litre of blood-stained fluid drained.

Except for a low haemoglobin level of 101 g/litre (normal range 115–165 g/litre) with normal mean corpuscular volume, blood tests including inflammatory markers were normal. Pleural fluid was not processed for biochemistry as a result of severe haemolysis. Cytology was negative for malignant cells and acid-fast bacilli.

A diagnosis of severe (stage IV) endometriosis was made. The patient was treated with goserelin injections 3-monthly. The chest and pelvic symptoms resolved. After the first injection, she underwent decortication. Diaphragmatic fenestrations were found and were closed. Further surgery to treat the pelvic endometriosis is planned.

with minimal intervention. However, recurrence rates with medical therapy are surprisingly high (>50% in a case series of 110 patients) (Joseph and Sahn, 1996). Surgical treatment can include both video-assisted thoracoscopic surgery and/or pleurodesis, closure of fenestrations as well as laparoscopy to evaluate and treat abdominal disease. Ultimately for some patients hysterectomy and bilateral salpingo-oophorectomy may represent the best chance of cure. **BJHM**

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LEARNING POINTS

- Thoracic endometriosis syndrome commonly involves the right hemithorax.
- Gonadotropin-releasing hormone is the most efficacious medical therapy.
- Recurrence rates are high with medical therapy alone.
- Hysterectomy and bilateral salpingo-oophorectomy may offer the best chance of cure in refractory cases.

Small intestinal and mesenteric lymphangioma in an adult: a rare cause of acute abdominal pain

Lymphangioma is a rare benign lymphatic tumour; the majority of cases present in childhood in the neck or axilla (Makni et al, 2012). It presents rarely in adults, involving the small bowel, mesentery or colon. Causes include congenital malformation of the lymphaticovenous system, trauma, surgery or lymphatic obstruction (Lee et al, 2011). The most common type is cystic: dilated lymphatic spaces filled with fluid which contains foamy macrophages (Rami et al, 2012).

An 18-year-old man presented with a 2-day history of generalized abdominal pain; he was haemodynamically unstable with peritonitis. Emergency laparotomy revealed small bowel obstruction with grossly abnormal jejunum and mesentery (*Figure 1*). This was resected, with subsequent jejunostomy and formation of an ileal mucous fistula. Histology demonstrated small intestinal and mesenteric cystic lymphangioma with secondary infection (*Figure 2*). Three months later, a jejuno-colic anastomosis was formed and he remains well.

This highlights lymphangioma as a rare but important differential diagnosis in young adults presenting with acute abdomen. **BJHM**

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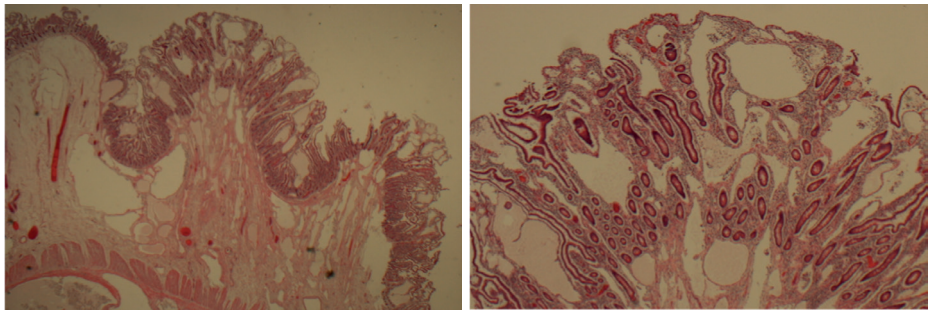
Figure 1. Abnormal small bowel mesentery.

Figure 2. Histological examination showing abnormal lymphatic channels in the small bowel mucosa.



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