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A case report of thoracic endometriosis – A rare cause of haemothorax

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ABSTRACT

INTRODUCTION: The presence of endometrial tissue in airways, pleura and lung parenchyma is called thoracic endometriosis syndrome (TES). It is a rare pathology, and typically consists of catamenial pneumothorax, haemothorax, haemoptysis, and pulmonary nodules. We report a case of a 36-year-old woman with thoracic endometriosis causing catamenial haemothorax.

CONCLUSIONS: The diagnosis of thoracic endometriosis is complicated and often delayed. TES should be suspected in a reproductive age woman with exacerbating symptoms during the menstruation.

Treatment may be medical and surgical.

1. Introduction

Endometriosis is defined as the presence of normal endometrial mucosa implantation outside the uterine cavity [1,2]. It is diagnosed in women of reproductive age [3]. Endometriosis most commonly affects pelvic organs, but it can be found in extra-pelvic organs and tissues [4,5]. One of extra-pelvic endometriosis form is thoracic endometriosis (TE) [3]. It can affect airways, pleura and lung parenchyma [6,7]. The presence of endometrial tissue in or around the lung is called thoracic endometriosis syndrome (TES) [2]. Typically, it consists of catamenial pneumothorax, haemothorax, haemoptysis, and pulmonary nodules [2,8]. The majority of patients commonly have catamenial pneumothorax (73%), while catamenial haemothorax is present just in 14% of the cases [9]. Chest pain, dyspnoea, cough, haemoptysis, and scapular pain are the most common patients' complaints [4]. Symptoms usually occur between 1 day before and 2–3 days after the onset of menstruation [8]. Diagnosis of TE is difficult. Anamnesis [10], imaging studies [2,3,8], histopathological examination [3] play an important role in the diagnosis of TES. However they all have limitations. The same symptoms are accompanied with other pulmonary diseases [4], radiological abnormalities are transient and there are no specific diagnostic criteria [4], and only one third of the cases may have histopathological confirmation of endometriosis diagnosis [11].

TES is treated medically and surgically. When medical treatment fails, surgical resection of endometriosis damaged tissue is suggested [12].

In line with the SCARE criteria, we report a case of a 36-year-old woman with thoracic endometriosis causing catamenial haemothorax [13]. It is the first case of TES that has required urgent surgical treatment in our hospital in past fifteen years.

2. Case report

A 36-year-old female was admitted to the Emergency Room (ER) because of pain in the right side of the abdomen and chest, breathlessness and faintness lasting few hours. The patient denied any trauma. Her past medical history was significant for long lasting iron deficiency anaemia (she had few blood transfusions), infertility and two abdominal surgeries. Ten years ago she underwent myomectomy, and seven years ago she had diagnostic laparoscopy because of severe bleeding during the menses (pelvic endometriosis was diagnosed). During physical examination, her blood pressure was 90/60 mmHg, and heart rate 89 times per min. Her skin and visible mucous were pale. Blood laboratory findings revealed anaemia: haemoglobin- 56 g/l, red blood cells – 2.63×10^{12}/l. Chest x-ray showed pleural effusion on the right side (See Fig. 1). One litre of haemorrhagic fluid from pleural cavity was drained in the ER. Then, a computed tomography scan of the chest, abdomen and pelvis was performed. It demonstrated a small amount of air and heterogenic fluid in the right side of the chest after right pleural cavity drainage, and a small amount of fluid in the abdomen. No more changes in the chest were detected. However, heterogenic nodules in the uterus, and solid density masses in the lower part of the abdomen were seen.

Hypovolemia was corrected by the transfusion of four units of red blood cells and crystalloid liquids in the ER. After that, the patient was admitted to the Department of Thoracic surgery for further examination and treatment. The patient was haemodinam-

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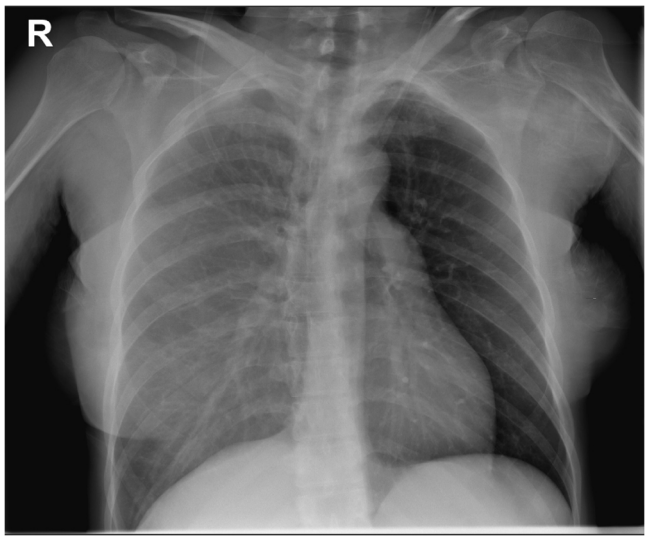

Fig. 1. Chest x-ray showed pleural effusion on the right side.

Fig. 3. Edometrial lesions, pulmonary nodules on the lung.

ically stable, the bleeding through the chest probe was stopped. Because of that, no urgent surgery was performed. Prior to video-assisted thoracoscopic surgery (VATS), an abdominal ultrasound was performed. It showed the same amount of fluid in the abdominal cavity. The patient underwent gynaecological examination. A transvaginal ultrasound examination revealed internal genitalia and pelvic endometriosis. However, severe bleeding through the chest probe repeated. The patient collapsed. It was the second day after the onset of menstruation. She was urgently taken to the operation theatre. Right side minithoracothomy was carried out. Blood clots in the right pleural cavity and suspected endometriosis lesions on the lungs, parietal pleura and diaphragm were found. The blood was slowly leaking from these lesions (See Fig. 2). Electrocoagulation, atypical lung resection was performed, and biopsy was taken (See Fig. 3). The lung was sutured with 3/0 Vicril suture. The pleurectomy of endometriosis affected pleura was also performed (See Fig. 4). Histopathological examination confirmed the diagnosis of endometriosis. The patient's postoperative course was uneventful. During the hospitalisation and three months after it, there was no recurrence of postoperative chest haemothorax. Due

Fig. 4. Endometrial tissue affected pleura.

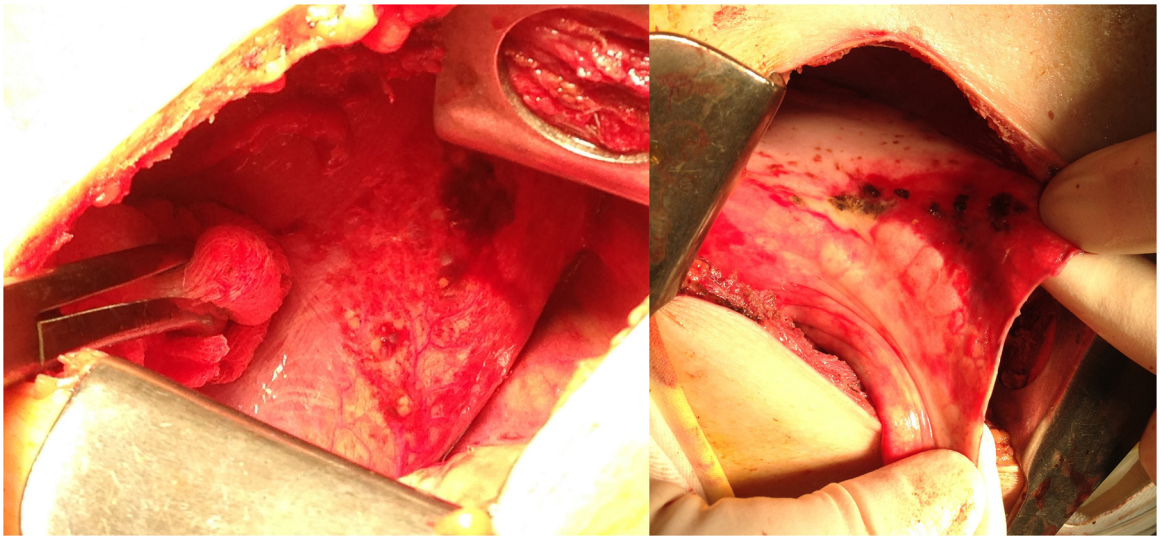

Fig. 2. The blood is slowly leaking from endometrial lesions.