

Value of Thoracoscopy in the Diagnosis and Treatment of Complicated Thoracic Endometriosis in 2 Patients

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We present 2 cases in which, when faced with suspicion of catamenial hemopneumothorax or pneumothorax, video-assisted thoracoscopy was used for identification, biopsy, and electrocoagulation of the tissue sites where pleural endometriosis was suspected.

Key words: Thoracic endometriosis. Video-assisted thoracoscopy. Hemopneumothorax. Pneumothorax.

Aportación de la toracosopia en el diagnóstico y tratamiento de la endometriosis torácica complicada (a propósito de 2 casos)

Presentamos 2 casos clínicos en los que, ante la sospecha de hemo/neumotórax catamenial, se utilizó la videotoracosopia para la identificación, biopsia y electrocoagulación de los focos de tejido altamente sospechosos de endometriosis pleural.

Palabras clave: Endometriosis torácica. Videotoracosopia. Hemo/neumotórax.

Introduction

Thoracic endometriosis is an uncommon entity, with an incidence of less than 1%, that is characterized by the presence of foci of endometrial tissue in the thoracic cavity.¹ Video-assisted thoracoscopy is an appropriate surgical technique for its diagnosis and treatment.¹⁻³

Case Descriptions

Case 1

A 24-year-old para 0 woman with pelvic endometriosis presented with 3 episodes of right pneumothorax while menstruating. The first episode resolved after pleural drainage. After the first recurrence, resection of the bullae and mechanical pleural abrasion were performed by video-assisted thoracoscopy. A second recurrence prompted an additional video-assisted thoracoscopic procedure, during which tissue with an endometrial appearance was observed in the diaphragmatic pleura. Talc pleurodesis was performed. The patient has been free of symptoms for 10 years.

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Case 2

A 31-year-old para 0 woman with an ovarian endometrioma suffered an episode of hemothorax and pneumothorax while menstruating. Video-assisted thoracoscopy revealed flat plaques in the diaphragmatic pleura. One of those plaques contained a central hematoma (Figure 1) that was probably responsible for the hemothorax. Biopsy confirmed the presence of endometrial tissue (Figure 2). The ectopic tissue was electrocoagulated and talc pleurodesis was performed. Seven months later, after laparoscopy, the patient presented with a new episode of right

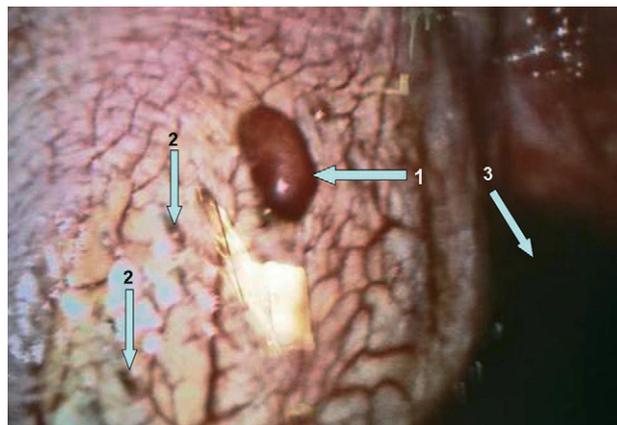


Figure 1. Focus of endometrial tissue in the diaphragmatic pleura. Video-assisted thoracoscopic visualization of the focus of pleural endometriosis with a central hematoma (1), foci of brownish-gray pleural endometriosis (2), and residual hemothorax in the pleural cavity (3).

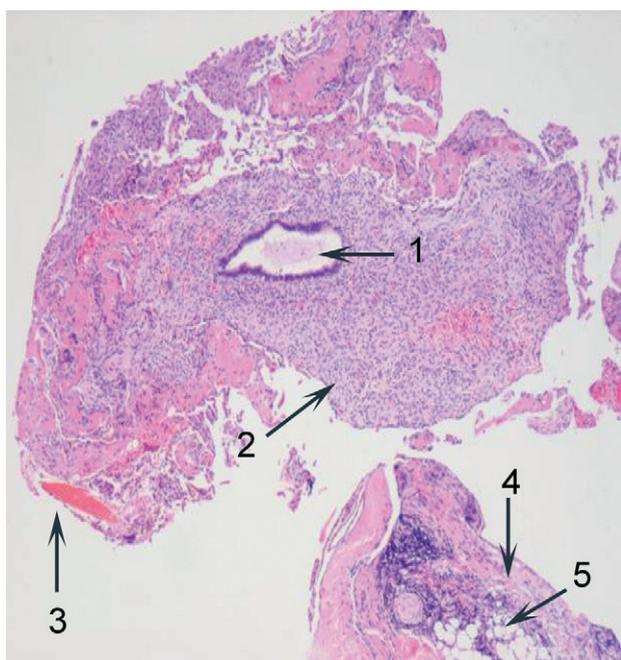


Figure 2. Histologic appearance of endometrial tissue in the diaphragmatic pleura. (1) Endometrial gland of undulating appearance in the luteal phase of the menstrual cycle; (2) endometrial stroma; (3) vascular appearance of the endometrial stroma in the luteal phase; (4) tissue of the diaphragmatic pleura; and (5) adipocytes of parietal pleura.

pneumothorax. A second video-assisted thoracoscopy and pleurodesis were carried out by the same route. The patient has been free of symptoms for 7 months.

Discussion

Thoracic endometriosis, described for the first time by Maurer in 1958,⁴ is an uncommon entity^{1,4} that is associated with endometrial tissue growth in the bronchial tree, lung parenchyma, and/or pleura.¹ In our patients, endometrial material was found in the diaphragmatic pleura. This condition presents most often in the right hemithorax^{1,2,4} and in para 0 women of a child-bearing age (15-50 years) with a peak incidence between the ages of 20 and 30 years.^{5,6} Onset is closely related to the menstrual cycle and estrogen stimulus. The clinical manifestations vary widely from asymptomatic courses to catamenial hemothorax or pneumothorax or repeated hemoptysis. Symptoms present within 72 hours of the start of menstruation. The origin of clinical manifestations is subject to some debate.⁴

Hemothorax and hemoptysis could be explained by hemorrhage of the endometrial foci that have proliferated as they would have in the uterus. The etiology of pneumothorax is based on the association of endometriosis with the presence of congenital diaphragmatic defects that would allow abdominal air to pass to the pleural cavity.⁴ This hypothesis would explain the appearance of pneumothorax after the performance of laparoscopy in our second patient.

The clinical diagnosis of catamenial hemothorax or pneumothorax is based on the appearance of symptoms during menstruation.^{1,2} A definitive diagnosis is achieved by histologic confirmation.^{1,2} Medical treatment involves blocking hormones that cause endometrial tissue to proliferate. Surgical treatment consists of tissue resection and pleurodesis, in our case, by means of video-assisted thoracoscopy.

In conclusion, video-assisted thoracoscopy is a suitable approach to treatment of thoracic endometriosis in that the pleural cavity and location of the foci of endometriosis can be visualized, allowing biopsy for histologic confirmation of diagnosis as well as resection or electrocoagulation of the ectopic foci of tissue followed by pleurodesis. When faced with a patient with a history of pelvic endometriosis and hemothorax or pneumothorax coinciding with menstruation, the diaphragmatic pleura should be examined by means of video-assisted thoracoscopy in search of endometrial implants. Lesions typical of pleural endometriosis are flat brownish-gray plaques that are flush with the surrounding tissue, measure a few millimeters across, and may contain a central hematoma.

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