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Images in Gynecologic Surgery

Dual Compartment Surgery for Pulmonary Endometriosis

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A 46-year-old black woman with a history of endometriosis presented with right-sided sciatica, right shoulder pain, and persistent cough. She had a history of severe endometriosis and myomas with previous laparoscopic supracervical hysterectomy and bilateral salpingectomy performed at an outside facility 1 year earlier. Three weeks before presentation, she had a spontaneous right pneumothorax, which was managed with a tube thoracostomy. Transvaginal ultrasound showed bilateral endometriomas, and a repeat computed tomographic scan indicated a recurrent right apical pneumothorax.

Right video-assisted thoracic surgery encountered multiple implants of endometriosis on the lung parenchyma, parietal pleura, and bleb formation (Fig. 1). The diaphragm also had significant endometriosis as well as multiple fenestrations. These areas were resected with a linear endo GIA stapler (Medtronic, Minneapolis, MN) (Fig. 2), and mechanical pleurodesis was performed.

Fig. 1

An intraoperative thoracoscopic image of lung endometriosis.

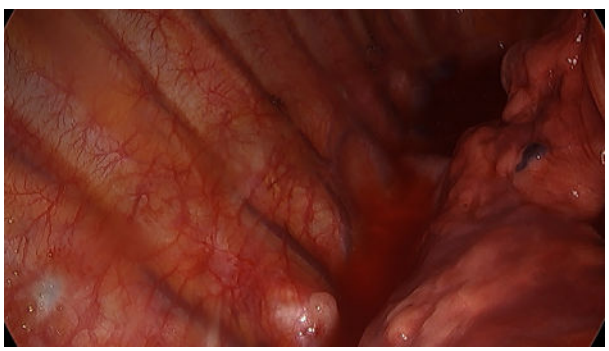


Fig. 2

An intraoperative thoracoscopic image of wedge resection of lung endometriosis and bleb.

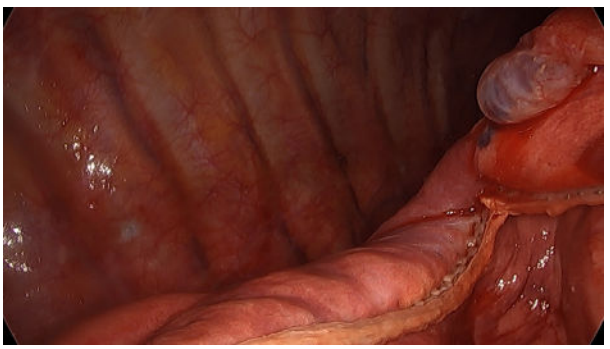
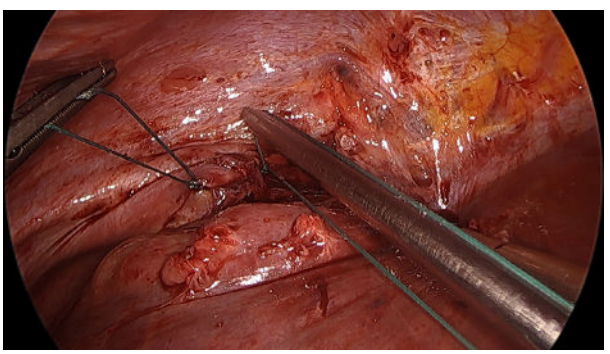


Fig. 3

An intraoperative image of laparoscopic suturing of the diaphragm with extracorporeal knot tying.



Laparoscopic intraperitoneal exploration of the diaphragm revealed an additional fenestration, which was subsequently repaired laparoscopically with 2 interrupted 0 Ethibond sutures (Ethicon, Cincinnati, OH) and tied extracorporeally (Fig. 3). Pelvic survey was positive for multiple

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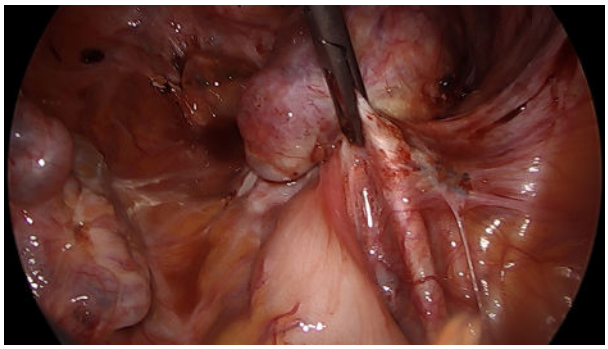
Fig. 4

An intraoperative image of pelvic endometriosis.



implants of endometriosis on the pelvic sidewalls, bowel, and bilateral endometriomas (Fig. 4). Bilateral oophorectomy and excision of endometriosis were performed. Thirteen specimens were removed, and 12 were histologically confirmed for endometriosis.

Pulmonary endometriosis is a rare form of thoracic endometriosis with unclear pathogenesis. One hypothesis is that peritoneal implants on the diaphragm may infiltrate through fenestrations to seed the pleural space [1,2]. Endometrial invasion of the lung by lymphatic or hematogenous spread during pelvic surgery has also been suggested [3].

Diagnosis and treatment of the disease can often be delayed for several months after the onset of symptoms [4]. Medical management with hormonal therapy can help with symptom relief; however, given the side effects and high rate of recurrence, many patients will need surgical resection of the disease [5].

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