

Commentary: Thoracic Endometriosis: The Necessity of a Multidisciplinary Approach for Optimal Treatment

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Endometriosis affects approximately 10% of women of reproductive age. It not only causes symptoms like dysmenorrhea and dyspareunia but is also a major contributor to female infertility. Although endometriosis primarily affects pelvic organs, around 5% of cases present extra-pelvic. The gastrointestinal tract and urinary system are the most common sites for extra-pelvic endometriosis, which is usually diagnosed and treated as an extension of pelvic endometriosis [1].

However, the diagnosis of thoracic endometriosis may be overlooked if healthcare providers fail to include endometriosis in their differential diagnosis, and currently, there is no standardized treatment for this condition. Thoracic endometriosis should be suspected when symptoms such as cough, hemoptysis, chest pain, shoulder pain, pneumothorax, or hemothorax occur more than twice from 24 hours before to 72 hours after the onset of menstruation [1]. Nonetheless, Fukuoka et al. noted that half of the women who underwent surgery for recurrent pneumothorax and were later diagnosed with thoracic endometriosis had experienced pneumothorax outside of their menstrual periods, which complicates the diagnostic process [2]. Further research is necessary to identify the most effective imaging modality for diagnosing thoracic endometriosis. Given the

complexity of the disease, a multidisciplinary approach is essential.

Thoracic endometriosis is categorized into 2 types: menstrual pneumothorax (or hemothorax), which affects the pleura and presents as pneumothorax (or hemothorax), and menstrual hemoptysis, which impacts the lung parenchyma and manifests as hemoptysis or pulmonary nodules on imaging tests. Although these forms display similar symptoms, they are thought to have completely different etiologies [3-5].

Given the lack of a standardized treatment for thoracic endometriosis, adopting a multidisciplinary approach is crucial for both surgical and pharmacological interventions. Surgical management of menstrual pneumothorax or hemothorax typically involves video-assisted thoracic surgery. Notably, endometriotic lesions are identified on the diaphragm in 84% of cases, suggesting a possible connection to pelvic endometriosis [5,6]. Available treatment options include resection of the affected diaphragm area, pleurodesis, pleural abrasion, or pleurectomy.

Menstrual pneumothorax resulting from endometriosis exhibits a high recurrence rate post-surgery, with figures reported up to 67%. Given this high recurrence rate, pharmacological management strategies, including gonadotro-

pin-releasing hormone (GnRH) agonists, oral contraceptives, and progestogens such as dienogest, are increasingly being adopted. However, there are no prospective studies to confirm whether postoperative drug treatment effectively reduces recurrence [5,7]. Studies show a recurrence rate of 27% when postoperative drug treatment is used, underscoring the need for further research into the most effective drugs and the appropriate duration of their use. When drug treatment alone, such as GnRH agonists or oral contraceptives, is used without surgical intervention, symptoms may improve, but the recurrence rate remains high. In cases of menstrual hemoptysis, surgical options like lobectomy or pulmonary segmentectomy that include the lesion may be performed, with the possibility of adjunctive drug treatment being considered [8].

Until the 2000s, surgery was the primary treatment for pelvic endometriosis in obstetrics and gynecology. However, since the 2010s, the introduction of various medications for endometriosis has shifted the treatment paradigm. Now, the approach favors performing surgery only once in a lifetime, followed by ongoing management with medication. This shift highlights the growing importance of pharmacological treatment for women with endometriosis. Given the higher recurrence rate of thoracic endometriosis compared to its pelvic counterpart, a greater emphasis on drug management is warranted. Further research is necessary to determine the most effective medications and the optimal duration of treatment.

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