

## Catamenial Pneumothorax: Report of Two Cases and Review of the Local Literature

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**Abstract :** Catamenial pneumothorax is defined as a recurrent accumulation of air in the pleural cavity, which occurs in the period of 72 hours before or after menses. In a menstruating woman presenting with the difficulty of breathing and chest pain with concomitant radiographic evidence of pneumothorax, a diagnosis of catamenial pneumothorax should be entertained. Two cases of catamenial pneumothorax were reported in our local literature. This report added two more cases. The first case is 45 years old G1P1, while the second case is 46 years old G2P2. These two patients had a history of pelvic endometriosis in the past. All other signs and symptoms were similar to the previously reported cases. All patients presented with difficulty of breathing associated with chest pain. Imaging studies showed right-sided pneumothorax in all patients. Intraoperatively, subpleural bleb, diaphragmatic fenestrations, and endometriotic implants were found. Three patients underwent video-assisted thoracosurgery (VATS), while one patient underwent open thoracotomy with pleurodesis. Histopathology revealed endometriosis in only two patients. All patients received postoperative hormonal therapy, and there were no recurrences noted in all patients. Endometriosis-related catamenial pneumothorax is a rare condition that needs early recognition of the symptoms. Several theories may be involved to explain the pathogenesis of catamenial pneumothorax. Two cases show a strong significant association between a history of pelvic endometriosis and the development of catamenial pneumothorax, while one case can be explained by the hormonal theory. The difficulty of breathing and chest pain in relation to menses may prompt early diagnosis. One case has shown that pneumothorax may occur even after menstruation. A biopsy of the endometrial implants may not always show endometrial glands and stroma, nor will immunostaining, which will not always show estrogen and progesterone receptors. Video-assisted thoracoscopic surgery is the gold standard in the diagnosis and treatment of catamenial pneumothorax. Postoperative hormonal suppression will further reduce the disease recurrence and facilitate the effectiveness of the surgical treatment.

**Keywords :** catamenial pneumothorax, endometriosis, menstruation, video assisted thoracosurgery

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