THE JOURNAL OF OBSTETRICS AND GYNECOLOGY OF INDIA

The Journal of Obstetrics and Gynecology of India (November–December 2013) 63(6):424–425
DOI 10.1007/s13224-012-0205-1

CASE REPORT

# Catamenial Pneumothorax: A Rare Phenomenon?

**Thomas Vinotha · Thomas Elsy · Lionel Jessie**

Received: 10 January 2012 / Accepted: 26 May 2012 / Published online: 5 October 2012


## Introduction

Thoracic endometriosis is a rare form of extrapelvic endometriosis. The mean age of presentation is 35 years, with a range from 19 to 54 years. Catamenial pneumothorax is the most common presentation of this disease.

## Case Report

A 44-year-old married lady, with previous two-term, vaginal deliveries, presented with sudden severe right-sided pleuritic chest pain, and dyspnea, on the 1st day of the period, over the last 2 years. This was initially experienced every two to three cycles but progressed to be symptomatic every month. Her cycles were regular, with no associated dysmenorrhea. On examination, the uterus was found to be irregularly enlarged to 16 weeks. A clinical diagnosis of catamenial pneumothorax was made, which was confirmed by premenstrual and menstrual CT scans (Fig. 1a, b).

The patient was given a trial of depot GnRH injections, with no relief of symptoms. Hence, she was advised hysterectomy with bilateral salpingo-oophorectomy by the pulmonologists.

Intraoperatively, the uterus was irregularly enlarged during 16 weeks with a single large subserous fibroid measuring 8 × 10 cm. Both ovaries showed evidence of endometriosis and were stuck to posterior surface of uterus. The parametrium was thickened and scarred, with bowel adherent to the posterior surface of uterus.

She had an uneventful post-operative period. Four months following surgery, she is asymptomatic with no recurrence of the pneumothorax. She has occasional hot flushes which do not affect her quality of life.

## Discussion

Thoracic endometriosis syndrome (TES) is a rare condition, unlike pelvic endometriosis. Catamenial pneumothorax is the most common presentation of the disease. Less common presentations are catamenial hemothorax, hemoptysis, and pulmonary nodules [1].

TES may occur independent of pelvic endometriosis. The symptoms occur within the first 24–48 h of onset of menstruation and usually involve the right side of the chest. Chest pain occurs in 90 %, dyspnea in one third, and hemoptysis rarely. The diagnosis is clinical. Imaging confirms the diagnosis, and CT scan of the thorax may clinch the diagnosis if obtained during menstrual cycle. CA 125

Thomas V., Assistant Professor ·
Thomas E. (✉), Assistant Professor ·
Lionel J., Professor
Department of Obstetrics and Gynecology, Christian Medical College and Hospital, Vellore 632004, Tamil Nadu, India
e-mail: et@cmcvellore.ac.in

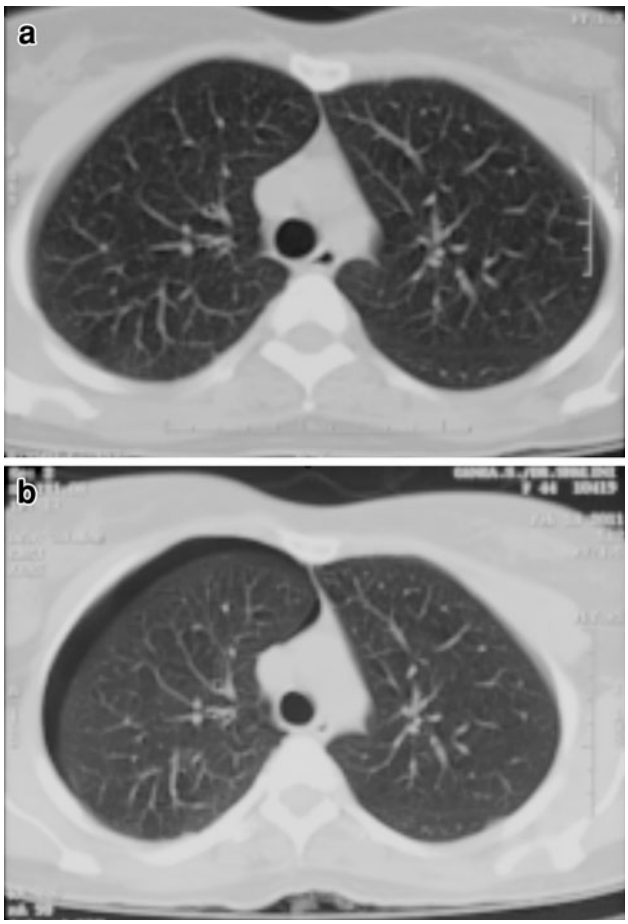


**Fig. 1** **a** Normal premenstrual, nonenhanced CT sections (lung window) taken at a level 1 cm above the carina. **b** CT sections taken during menstrual cycles showing right sided pneumothorax (1)

may be elevated [2]. Other diagnostic modalities include bronchial artery angiography, bronchoscopy and video-assisted thoracoscopy.

Definitive management includes hormonal manipulation using contraceptive pills, progestins, danazol, and GnRH analogues, all of which are associated with high recurrence rates. Surgical options include excision of endometrial implants and correction of diaphragmatic defects which may prevent recurrence of catamenial pneumothorax/hemothorax, though chest pain may recur which then requires hormonal suppression. Refractory disease responds to hysterectomy and bilateral salpingo-oophorectomy [3]. However, adverse effects of oophorectomy need to be considered, as estrogen replacement therapy postoperatively can reactivate dormant thoracic endometrial tissue.

**Conflict of Interest** The authors have no conflict of interests.

## References

1. Channabasavaiah AD, Joseph JV. Thoracic endometriosis revisiting the association between clinical presentation and thoracic pathology based on thoracoscopic finding in 110 patients. Medicine (Baltimore). 2010;89(3):183–8
2. Bagan P, Berna P, Assouad J, et al. Value of cancer antigen 125 for diagnosis of pleural endometriosis in females with recurrent pneumothorax. Eur Respir J. 2008;31(1):140–2.
3. Alifano M, Trisolini R, Cancellieri A, et al. Thoracic endometriosis: current knowledge. Ann Thorac Surg. 2006;81(2):761–9.