



doi • 10.5578/tt.6215
Tuberk Toraks 2014;62(2):151-153
Geliş Tarihi/Received: 31.08.2013 • Kabul Ediliş Tarihi/Accepted: 05.09.2013

KISA RAPOR
SHORT REPORT

Catamenial hemoptysis: a case report

Aylin OKUR¹
Bayram METİN²
Yavuz Selim İNTEPE³
Halil İbrahim SERİN¹

- ¹ Department of Radiology, Faculty of Medicine, Bozok University, Yozgat, Turkey
¹ Bozok Üniversitesi Tıp Fakültesi, Radyoloji Anabilim Dalı, Yozgat, Türkiye
² Department of Thoracic Surgery, Faculty of Medicine, Bozok University, Yozgat, Turkey
² Bozok Üniversitesi Tıp Fakültesi, Göğüs Cerrahisi Anabilim Dalı, Yozgat, Türkiye
³ Department of Chest Disease, Faculty of Medicine, Bozok University, Yozgat, Turkey
³ Bozok Üniversitesi Tıp Fakültesi, Göğüs Hastalıkları Anabilim Dalı, Yozgat, Türkiye

SUMMARY

Catamenial hemoptysis: a case report

Herein we present a 25-year-old female patient who was admitted with recurrent hemoptysis in menstrual period. At the thorax computed tomography taken during menstruation of patient, diffuse ground glass density and acinar nodules at superior segment of lower lobe at left lung were detected. There was no this findings at the thorax tomography taken in non-menstruation period. Therefore, patient was considered catamenial hemoptysis with clinical and radiological findings. Pulmonary endometriosis is rarely seen disease of the lung, so we are presenting it in the light of the literature knowledge.

Key words: Hemoptysis, menstrual period, pulmonary endometriosis

ÖZET

Katamenial hemoptizi: Olgu sunumu

Bu yazıda, menstrasyon döneminde tekrarlayan hemoptizi şikayetiyle başvuran 25 yaşında kadın hasta sunulmaktadır. Menstrasyon döneminde çekilen toraks tomografisinde sol akciğer alt lob süperiyorda buzlu cam dansitesi ve asiner nodüler görüntümler saptandı. Menstrasyon dışı dönemde çekilen toraks tomografisi normaldi. Klinik ve radyolojik bulguları ile katamenial hemoptizi düşünüldü. Akciğerde nadir görülen bir hastalık olan pulmoner endometriyozis olgusunu, literatür eşliğinde sunuyoruz.

Anahtar kelimeler: Hemoptizi, menstrasyon, pulmoner endometriyozis

INTRODUCTION

Thorax is a rare site of endometriosis (1). Endometriosis of the lung is associated with catamenial hemoptysis, hemothorax, pneumothorax and chest pain (2). Catamenial hemoptysis is very rare disorder that is characterized by hemoptysis occurring concomitant

Yazışma Adresi (Address for Correspondence)

Dr. Aylin OKUR
Bozok Üniversitesi Tıp Fakültesi, Radyoloji Anabilim Dalı,
YOZGAT - TURKEY
e-mail: draylinokur@hotmail.com

with menstruation in female patients (3). We aimed to present case of 25 year old who was diagnosed as catamenial hemoptysis by clinic and multidetector computed tomography (MDCT) with literature.

CASE REPORT

Twenty five year old female patient attended to chest surgery clinic with complaints of hemoptysis presenting for five months and repeating at menstruation period. She had history of one parturition with normal vaginal way. She had no history of smoking. Hemoptysis was present for every menstruation period which lasted for about five days and a total amount of a cup of tea. Patient had taken three thorax computed tomography (CT) at outer clinics, two of them at menstrual period and one non-menstrual period. Diffuse ground glass density and acinar nodules in the superior segment of the left lower lobe was present on CT taken at our clinic in menstrual period which was compatible with CTs taken at outer clinic in menstrual period. There was not abnormal finding at CT taken at outer clinic in period of non-menstruation. The pathological finding did not reveal at bronchoscopy. Primarily hormone therapy was suggested to the case which was thought as catamenial hemoptysis with existing findings. Patient did not accept hormone therapy. Upon this, video thoracoscopic wedge resection was proposed according to observing source of bleeding bounding in the superior segment of the left lower lobe at CTs. Patient was obliged to discharge due to desisting surgery after accepting surgery and planning preoperation arrangements.

DISCUSSION

Endometriosis is the presence of functional endometrial tissue in extrauterine sites. It is most commonly localized in the ovaries, uterosacral ligaments and peritoneum. Thoracic endometriosis is a rare form of extrapelvic endometriosis. Endometrial tissue may be within the pleura, the lung parenchyma or the airways in thoracic endometriosis. In menstruation period, clinic emerge according to changes at areas where endometrial tissue present due to circulating sex hormones (1). The pathogenesis of thoracic endometriosis is not clear. Hypotheses for the spread of endometrial tissue have been explained microembolization theory, peritoneal-pleural migration and coelomic metaplasia. Microembolization theory states that endometrial tissue can be transported via pelvic vascular channels or lymphatics. Peritoneal-pleural migration theory states that endometrial tissue reaches the thorax as

retrograde through diaphragmatic defect. Coelomic metaplasia theory states that mesothelial cells differentiated into endometrial cells (4). But, this theories is debated. Obstetric or gynecologic procedures may be an important risk factor for catamenial hemoptysis (5). Recently, new insights have been proposed about etiology and pathogenesis of this disease such as genetic susceptibility, environmental factors, the immun system, intrinsic endometrial abnormalities and the secreted products of endometrial lesions (6).

Pulmonary endometriosis has varying clinical manifestations such as pneumothorax, hemothorax, hemoptysis and pulmonary nodules and the most common of them is catamenial pneumothorax (73%) (7). Other presentations include catamenial hemothorax (14%), catamenial hemoptysis (7%) and pulmonary nodules (6%). A clinical picture of hemoptysis concurrent with menstrual periods helps to differentiate catamenial hemoptysis from hemoptysis of the other causes (1).

Thorax CT is the modality of choice for localization of endometrial deposits in the lung and pleura but radiologic findings are usually non-specific. The CT findings of pulmonary endometriosis may include well-defined opacities, nodular lesions, thin-wall cavities (8). Kim et al. reported that ground glass opacities were most commonly appeared on thorax CT (9). In our patient, the CT images taken during her menstrual period showed a ground glass opacity and acinar nodules in the superior lingual segment of left lung. Any lesion or opacity was seen at CT taken at outer clinic in non-menstruation period. Lung lesions are usually present at right lung and lower lobes (9). In our case, lesion was in the superior segment of lower lobe at left lung.

The utility of bronchoscopy is limited because most cases of pulmonary endometriosis involve the distal parenchyma and therefore bronchoscopic examination of the air ways usually obtains normal findings as in our case. CT guided aspiration or biopsy is also difficult, because biopsy or resected specimens should be obtained just before the onset of menstrual period (1).

Medical and surgical treatment options can be considered for the treatment of pulmonary endometriosis. Danazol and Gonadotropin releasing hormone (GnRH) are the treatment of choice for pulmonary endometriosis. Medical therapy is expensive, and the symptoms may be repeated after it is discontinued.

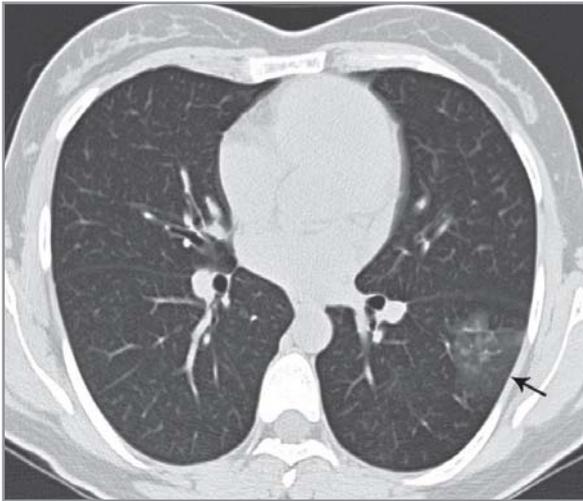


Figure 1. Thorax CT performed during menstruation shows acinar nodules and ground glass opacities in the superior segment of the left lower lobe (arrow).

But, these drugs have side effects like menopausal symptoms (10). Therefore, hormonal therapy would not be preferred for young women of reproductive age. The indications for pulmonary surgical procedure are medical therapy failure, adverse effects, recurrent symptoms after stopping hormonal therapy (1).

At presenting case, diffuse ground glass density and acinar nodules in the superior segment of lower lobe at left lung at CT taken simultaneously was present at our patient who has hemoptysis repeating in menstruation period and CT taken in non-menstrual period was normal (Figure 1). These findings combined with clinical was thought catamenial hemoptysis.

As a result, pulmonary endometriosis should be considered at cases of hemoptysis related with menstruation. Bronchoscopic findings may be normal in these patients. For this reason, comparison of thorax CTs which will be taken in menstruation and non-menstruation period is very important to support diagnosis.

CONFLICT of INTEREST

None declared.

REFERENCES

1. Augoulea A, Lambrinouadaki I, Christodoulakos G. Thoracic endometriosis syndrome. *Respiration* 2008;75:113-9.
2. Giudice LC, Kao LC. Endometriosis. *Lancet* 2004;364:1789-99.
3. Joseph J, Sahn SA. Thoracic endometriosis syndrome: new observations from an analysis of 110 cases. *Am J Med* 1996;100:164-70.
4. Alifano M, Trisolini R, Cancellieri A, Regnard JF. Thoracic endometriosis: current knowledge. *Ann Thorac Surg* 2006;81:761-9.
5. Kervancioglu S, Andic C, Bayram N, Telli C, Sarica A, Sirikci A. Bronchial artery embolization in the management of pulmonary parenchymal endometriosis with hemoptysis. *Cardiovasc Intervent Radiol* 2008;31:824-7.
6. Pergialiotis V, Lagkadas A, Polychronis O, Natsis S, Karakalpakis D, Giannakopoulos K. Endometriosis-associated ovarian cancer. Presentation of a case report and review of the literature. *Eur J Gynaecol Oncol* 2011;32:682-5.
7. Lee YR, Choi YW, Jeon SC, Paik SS, Kang JH. On the AJR viewbox. Pleuropulmonary endometriosis: CT-pathologic correlation. *AJR Am J Roentgenol* 2006;186:1800-1.
8. Orriols R, Muñoz X, Alvarez A, Sampol G. Chest CT scanning: utility in lung endometriosis. *Respir Med* 1998;92:876-7.
9. Kim CJ, Nam HS, Lee CY, Yum HK, Yang SH, Seo KH, et al. Catamenial hemoptysis: a nationwide analysis in Korea. *Respiration* 2010;79:296-301
10. Hong YJ, Paik HC, Kim HJ, Lee DY, Kim SJ, Cho SH, et al. A case of parenchymal pulmonary endometriosis. *Yonsei Med J* 1999;40:514-7.