Catamenial hemoptysis: a case report

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SUMMARY

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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


Anahtar kelimeler: Hemoptizi, mensturasyon, 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...
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 extraterine sites. It is most commonly localized in the ovaries, uterine ligaments and peritoneum. Thoracic endometriosis is a rare from 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 vasculary 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-menstrual 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.
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 hemoptyis repeating in menstruation period and CT taken in non-menstrual period was normal (Figure 1). These findings combined with clinical was thought catamenial hemoptyis.

As a result, pulmonary endometriosis should be considered at cases of hemoptyis 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