

Commentary

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Thoracic endometriosis is a relatively rare condition and is usually diagnosed from a history of cyclical chest pain or cyclical haemoptysis known as catamenial haemoptysis. The cyclicity relates to the menstrual cycle, and the pain occurs at the time of menstruation. Ectopic endometrium in distant sites from the pelvis is well described and causes symptoms relative to the site where the ectopic endometrium bleeds. Other rare problems of spontaneous pneumothorax or pleural effusion in conjunction with the cyclical history should raise the awareness of endometriosis as a diagnosis. There are no other causes of thoracic symptoms that are cyclical in nature. The site of the endometriotic deposit within the lung or pleura is very rarely established as it lies within the pleura or in the peripheral lung parenchyma and is usually only visible at the time of menstruation. The use of endoscopy is therefore extremely limited as it will only allow imaging of lesions high in the bronchial tree.

The case reported by Kuo *et al* describes the first case of tracheal endometriosis. The rarity of this illustrates how the use of bronchoscopy in the diagnosis of endometriosis is rarely helpful. It is naturally an important investigation for excluding other causes of haemoptysis, but the absence of a lesion does not exclude a diagnosis of endometriosis. Kuo and colleagues chose to treat the lesion with danazol which was very effective.

The aetiology of thoracic endometriosis remains speculative, with two possible theories having been suggested. The first of these is a vascular theory whereby endometrial cells are transported via the venous system to the right side of the heart and thereafter via the pulmonary artery to peripheral sites in the lungs. As these are cellular deposits, it is extremely unlikely that they would find themselves in anything other than the capillary architecture of the lungs. If these cells implant they proliferate under the influence of cyclical oestrogen, and an endometrial deposit may take many years to proliferate sufficiently to cause symptoms. The cyclical chest pain may therefore be a symptom which begins many years after a diagnosis of endometriosis in the pelvis has been made.

The case report by Flanagan and Barnes illustrates an even rarer complication of endometriosis – namely, ascites and pleural effusion. This case amply illustrates the great difficulty of making a diagnosis in these difficult circumstances, and why endometriosis must be remembered and included in the differential

diagnosis of this type of condition, particularly when ascites is associated with a right sided hydrothorax. The previous history of endometriosis in this woman should perhaps have raised the possibility of a coincident diagnosis a little sooner, but the rareness of this complication explains the delay. Whilst Flanagan and Barnes used all of the techniques available to try to image endometriosis, it again illustrates the difficulty of making the diagnosis as there is currently no reliable method of imaging endometriosis within the human body. A case report by Kennedy *et al* in 1991 suggested that pulmonary endometriosis might be imaged by immunoscintigraphy.¹

This approach using anti-endometrial antibodies labelled with fluorescein may hold some hope for the future. However, it remains somewhat non-specific and requires further evaluation.

In those cases of endometriosis causing ascites and pleural effusion reported in the literature, cure has only been brought about by total abdominal hysterectomy and bilateral salpingo-oophorectomy. The medical treatment of endometriosis is temporary and merely confirms the fact that the hypo-oestrogenic state is the desired curative course. The use of GnRH agonists in the treatment of endometriosis would seem to be extremely useful in establishing a course of therapy. The case described by Flanagan and Barnes illustrates how useful they can be. On both occasions the ascites and pleural effusion disappeared during the time of treatment, but as this is solely a temporary state of hypo-oestrogenism the inevitable recurrence of ascites and the hydrothorax occurred. The hypo-oestrogenic state removes the vital stimulus to endometrial cells, which are responsible for the disturbance in the peritoneal and pleural lining leading to the ascites and the effusion. To effect a permanent cure bilateral oophorectomy will therefore be necessary, but the woman may subsequently be offered hormone replacement therapy as it is believed that constant levels of oestrogen in the circulation rarely lead to the return of symptoms. Endometrial cell growth in endometriosis seems to require a cyclical variation in oestrogen in order to complete the apoptotic cycle. Hormone replacement therapy can therefore be used and may be necessary if the patients are young. Endometriosis is a condition which resolves at the menopause and therefore medical treatment may be appropriate if women are in their fifth decade and the medical treatment contains their symptoms and signs, but as most of these women are young the need for hormone replacement therapy must be borne in mind as a prevention against osteoporosis and coronary artery disease.

1 Kennedy S, Mojiminiyi S, Soper N, Spencer J, Shepstone B, Barlow D. Imaging of pulmonary endometriosis by immunoscintigraphy: case report. *Br J Obstet Gynaecol* 1991;98:600-1.

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