

# Retroperitoneal endometriotic cyst in a woman with post menopausal and post hysterectomy status – a case report

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## Abstract

Retroperitoneal endometriosis in patients with post hysterectomy status is very rare. Usually the patients presents with severe abdominal pain. We present an exemplary case of a post menopausal woman with past history of hysterectomy and bilateral salpingo-oophorectomy presenting with severe abdominal pain. She was found to have a retroperitoneal mass at the root of sigmoid mesentery on computed tomography. Biopsy and histopathological analysis revealed retroperitoneal endometriotic cyst.

**Keywords:** Retroperitoneal mass , Endometriosis , Endometriotic cyst.

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Received Date: 10/01/2015 Revised Date: 16/01/2015 Accepted Date: 21/01/2015

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DOI: 22 January 2015

## INTRODUCTION

Retroperitoneal endometriosis mimicking retroperitoneal sarcomas is a puzzling scenario for the clinician and radiologists. Few case reports are seen in the literature describing this phenomenon. The patient's symptoms are vague ranging from severe abdominal pain, with hematuria if GU involvement is present, with rectal bleeding, change in bowel habits, and even bowel obstruction if there is GI involvement. We present a case of 45 year old post menopausal woman with past history of Hysterectomy with bilateral salpingo-oophorectomy,

not on hormonal pills, now presenting with severe abdominal pain. CECT abdomen revealed a large mass in the retro peritoneum at the root of sigmoid mesentery. Subsequent biopsy and histopathology revealed endometriosis.

## CASE REPORT

A 45 year old female presented with lower abdominal pain which was diffuse, severe and progressive in nature. No associated bowel or bladder disturbances were present. Patient had undergone hysterectomy with bilateral salpingo-oophorectomy two years back in view of fibroid uterus. The patient did not have any co morbidities. On clinical examination there was no icterus, the abdomen was soft with mild tenderness, no guarding was seen. The patient was subjected to lab investigations which was normal. Ultrasound abdomen was done which revealed a heterogeneous mass inferior to kidney on left side, predominantly cystic in nature. Contrast Enhanced Computed Tomography was performed to further characterize the lesion and know the extent of the lesion.



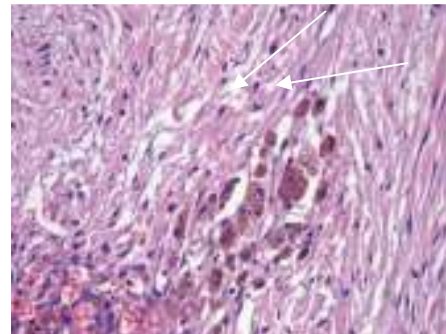
**Figure 1 (a-d):** Large solid appearing mass (1a){White arrows} is seen in left side of retroperitoneum showing heterogenous enhancement with cystic components on contrast imaging ( Arterial Phase 1b , Venous phase 1c). Coronal reformats of contrast enhanced CT scan (1d) showing variable cystic components within the lesion.

A large heterogeneous retroperitoneal mass was seen in the left side occupying the root of sigmoid mesentery. On plain sections of computed tomography the mass (white arrows) appeared heterogeneously solid in nature with lobulated margins (Figure 1a), however on contrast imaging it was predominantly cystic which peripheral areas of enhancement (Figure 1b, c). The solid density seen on plain scan was secondary to hemorrhagic components within the mass. No calcification or fat density was seen. The differential diagnosis of primary retroperitoneal sarcoma was given. Coronal reformatted image (Figure 1d) of contrast enhanced CT showing variable cystic component within the mass. Subsequently the patient was subjected to CT guided biopsy ( Figure 2) and specimen sent for histopathological analysis.



**Figure 2:** Axial CT image showing precise needle placement for biopsy of retroperitoneal mass.

On pathological examination hemosiderin filled macrophages were seen consistent with diagnosis of endometriotic cyst.



**Figure 3:** HPE showed hemosiderin filled macrophages within the cyst consistent with diagnosis of endometriotic cyst.

## DISCUSSION

Endometriosis is referred to abnormal implantation of endometrial tissue outside the uterine cavity. It has variable prevalence due to selection of groups that are studied and also due to difficulty in diagnosis. Although it is seen more commonly in women of child bearing age group, there have been few case reports of endometriosis in postmenopausal women.<sup>1</sup> Various theories have been postulated regarding the pathogenesis of endometriosis. According to the implantation theory, the endometrial tissue is shed during menstruation refluxes into the fallopian tubes .Occasionally they spill out into the peritoneum. The fact that implantations are more common in organs adjacent to uterus supports this theory. Endometriosis is often classified according to their location, as pelvic or extra-pelvic. If endometrial tissue is seen within the fallopian tubes, ovaries, and nearby pelvic

peritoneum, it is regarded as pelvic type usually presenting with triad of symptoms, dyspareunia, dysmenorrhea, and infertility in child bearing age. Classically the symptoms relapse and remit in accordance with the menstrual cycle, but this only occurs in about 40% of patients.<sup>2</sup> Apart from the pelvic locations described above, endometriosis located virtually anywhere else in the body, including involvement of the intestines, skin, lungs, liver, muscles, heart, urinary system, gallbladder are considered to be extra-pelvic in nature. Extra-pelvic endometriosis occurs more commonly in colon, with rectum and sigmoid colon being the commonest locations.<sup>3</sup> Though it is seen more commonly in pre menopausal women, there is low prevalence in postmenopausal women. There are multiple causes of postmenopausal persistence and progression of endometriosis. Exogenous hormones given after hysterectomy or for any other treatment are frequently the cause in the postmenopausal population. However, our patient was not on hormone treatment. Another possible cause is ovarian remnant syndrome. It results from incomplete removal of active ovarian tissue during a bilateral salpingo-oophorectomy. It might be possible that an ovarian remnant could have been present in our patient. But this patient had postmenopausal serum E<sub>2</sub> and FSH levels, which would likely have been at premenopausal levels if an active ovarian remnant had been present.<sup>4,5</sup> Diagnosis of retroperitoneal endometriosis is difficult and as demonstrated by this case and others can be confused with other more serious lesions such as sarcomas.

## CONCLUSION

Retroperitoneal endometrial implants can occur and should probably be considered as a potential etiology in an appropriate clinical setting. While endometriosis is a difficult radiologic diagnosis to make, it must be considered in women being worked up for a mass when the clinical picture is unclear. Because of these reasons, biopsy is usually necessary to confirm the diagnosis.

## ACKNOWLEDGMENT

The author declares that there are no competing interests and no external source of funding for this study.

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Source of Support: None Declared  
Conflict of Interest: None Declared