

Endometriosis presenting like a psoas abscess

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ABSTRACT

Endometriosis is the presence of ectopic endometrial tissue that responds to hormonal stimulation. Although endometriosis occurs most often in the pelvis, several unusual sites have been reported. We present a case of endometriosis mimicking a psoas abscess. A 39-year-old lady presented with pain around the right hip, of 5 years duration. Computed tomography (CT) scan showed a multi-loculated mass in the right iliopsoas muscle. On exploration, a hemorrhagic cystic mass was seen pressing on the femoral nerve. The lesion was excised and histological examination of the tissue showed features of endometriosis. The patient was treated by cyclic hormonal suppressive therapy for 3 months. Her pain and the flexion deformity of the hip resolved completely. Retroperitoneal endometriosis presenting with deformity and pain in the hip may mimic a psoas abscess. If the possibility of this diagnosis is entertained, inappropriate treatment may be avoided.

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Endometriosis is the presence of ectopic endometrial tissue presenting as glands and stroma outside the uterus responding to hormonal stimulation. It is found in approximately 15% of all women in the reproductive age group. The exact pathology of the condition is poorly understood. Even though it is a benign gynecological condition, it may be extremely debilitating. The extraperitoneal sites of endometriosis that have been reported in literature include the lungs, pleura, diaphragm, extremities, intestine, gall bladder, kidney, ureter, umbilicus, male urinary bladder, male abdominal wall and the sciatic nerve.¹ When present around the lumbar

area, it can compress a lumbar root or the lumbar plexus producing radicular signs. Retroperitoneal endometriosis presenting with fixed flexion deformity of the hip joint is rare. We present this case, which simulated a psoas abscess.

Case Report A 39-year-old lady, gravida-3, para-2, living-2 and ectopic pregnancy-1, presented to the department of orthopedics with pain in the right iliac fossa radiating to the thigh of 5 years duration. Initially, the patient had recurrent colicky pain, which got worse during her menstrual cycles. Later, she had continuous pain and difficulty in moving her right hip joint. She did not have any constitutional symptoms. The patient underwent salpingectomy for an ectopic pregnancy 20 years earlier. Two years ago, she was diagnosed to have retrocecal appendicitis with pelvic inflammatory disease and was treated with antibiotics (ciprofloxacin and metronidazole). A CT scan was carried out and results showed a mass in the right iliac fossa with homogenous soft tissue density with no areas of calcification. There was loss of the fat plane between the lesion and the iliopsoas muscle (Figure 1a). Pelvic ultrasonography did not reveal any evidence of a psoas abscess. As symptoms persisted, a CT scan was repeated and was reported as old hematoma or inflammatory soft tissue lesion secondary to appendicitis (Figure 1b). She was advised to undergo laparoscopy, but she refused. In view of Mantoux test being strongly positive (20 mm in duration), she was treated empirically with antitubercular drugs for 6 months.

On examination, she had tenderness in the right iliac fossa with a fixed flexion deformity approximately 30 degree in the right hip. There was pain on passive extension in the right hip. There was no limitation of other hip movements; no neurological deficit in the right lower limb and her blood investigations were normal. A fresh CT scan revealed a multi-loculated cystic lesion within the iliopsoas muscle (Figure 2). The lesion was surgically explored and excised. It was a soft, multi-loculated hemorrhagic cyst within the iliopsoas muscle with its wall adherent to the periosteum of

the ilium. The histopathological appearance of the lesion was consistent with endometriosis (Figure 3). The patient was referred to a gynecologist who ruled out ovarian involvement by laparoscopy and treated her with cyclic hormonal suppressive therapy for 3 months. On follow-up, her pain and the flexion deformity had resolved completely.

Discussion. The exact cause of endometriosis is unknown but various theories have been proposed. Sampson described the theory of retrograde menstruation in his classic paper published in 1927. Various animal experiments and clinical observations support this theory.^{2,3,4} Lymphatic and vascular spread may explain the occurrence of endometriosis at distant, non-contiguous sites. Transformation of coelomic epithelium into endometrial-type glands in response to, as yet unknown stimuli could explain endometriosis at unusual sites.⁵ Coelomic metaplasia is also believed to explain the occurrence of endometriosis in women who underwent total hysterectomy and are not taking estrogen replacement.⁶ Endometriosis may also occur in men on high-dose estrogen therapy.⁷ Immunogenetic defects are believed to increase the susceptibility of a woman to endometriosis. Humoral antibodies to endometrial tissue have also been found in sera of women with endometriosis.

Silver and Joki⁸ reported a case similar to the present report. A young woman presented with bilateral hip pain for several years. An ovarian cyst had been removed 20 years earlier. Motor, sensory and vascular examinations were normal in both lower extremities. Magnetic resonance imaging (MRI) confirmed bilateral intra-pelvic endometriosis adjacent to both acetabula.

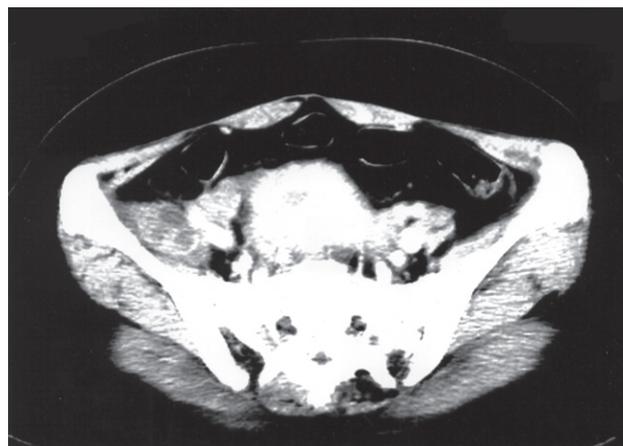


Figure 2 - The most recent CT scan of the pelvis showing a multiloculated cystic lesion in the right iliac fossa within the iliopsoas muscle.

Silver and Joki,⁸ suggested that while evaluating a young woman with hip pain, one needs to consider the differential diagnosis of a traumatic process, labral lesion, loose body, degenerative process, arthritides, avascular necrosis, neoplasm, vascular abnormality, metabolic diseases such as calcium deposition, sepsis, synovial disease and femoral hernias. Other internal causes include referred pain from the thoracolumbar spine, intra-abdominal structures and retroperitoneal structures. They emphasized that in addition, endometriosis may mimic common musculoskeletal problems in young women who are menstruating. Our patient presented with features of a psoas abscess. Since tuberculosis is the most common cause of a psoas abscess in this region she was empirically treated with

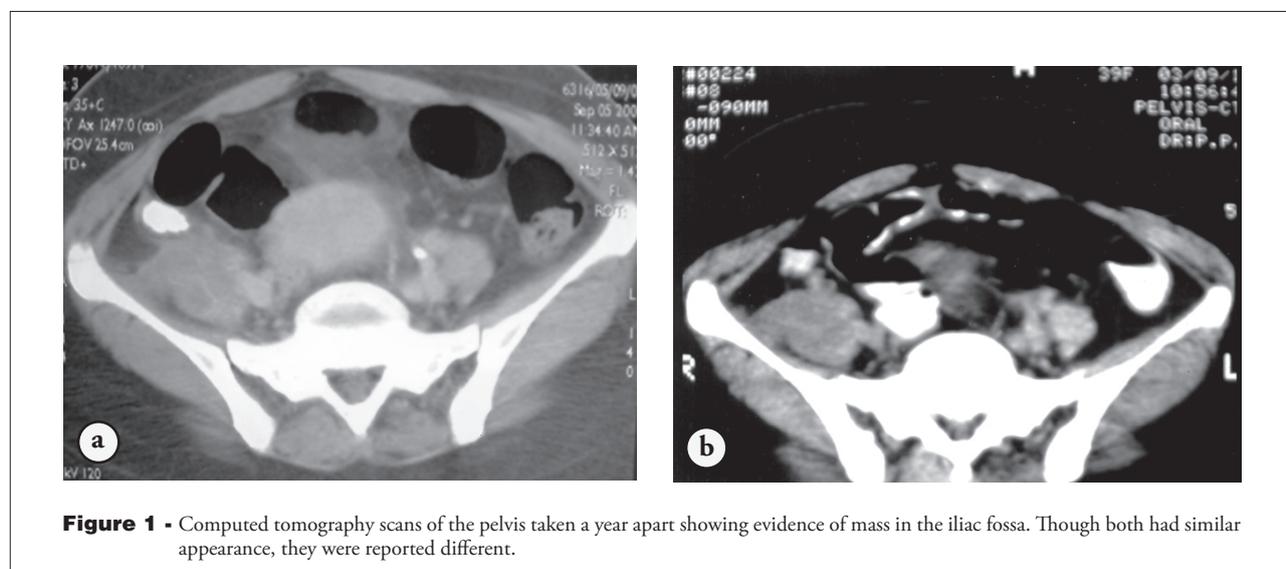


Figure 1 - Computed tomography scans of the pelvis taken a year apart showing evidence of mass in the iliac fossa. Though both had similar appearance, they were reported different.

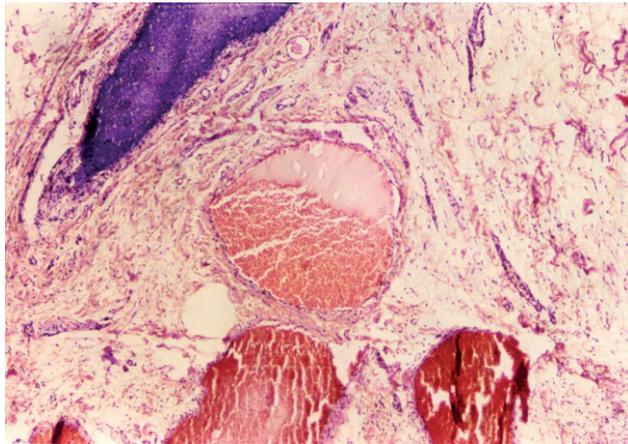


Figure 3 - Photomicrograph of the tissue excised. The features are consistent with those of endometriosis.

antitubercular drugs with no relief of symptoms. A diagnosis of endometriosis may be suspected if there is exacerbation of symptoms or increase in the size of the mass cyclically, coinciding with each menstrual period. However, in some patients, there may be no aggravation of symptoms during menstruation. In such instances, the diagnosis can only be possible after histologic examination of surgically excised tissue. Retroperitoneal endometriosis presenting with deformity and pain around the hip may mimic a psoas abscess and can be treated erroneously as a tuberculous lesion.

High degrees of suspicion with histopathological confirmation after surgical excision are needed to establish the diagnosis.

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