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All psoas Abscesses Are Not Tuberculous: A Case Report of an Atypical psoas Abscess

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Abstract: ***It is usually assumed that a psoas abscess is tuberculous in etiology. A high index of clinical suspicion is required in the present clinical scenario with the increased incidence of various immunosuppressive conditions like HIV, post-transplant and malignancies. A case of advanced carcinoma of the cervix presenting as a psoas and inguinal abscess like mass with Myositis of thigh muscle was diagnosed in a HIV negative 49yr women. The psoas abscess like lesion was initially considered to be due to tuberculosis. On detailed evaluation and tissue biopsy the lesion was diagnosed to be due to metastatic carcinoma of the cervix with infiltration and destruction of iliac bone and acetabular wall. This type of advanced presentation with bone destruction metastasis is reported in HIV positive patients only. The purpose of this case report is to bring attention towards various causes of psoas abscess with Myositis of thigh and always have to be tissue proven for pyogenic and tuberculosis. A brief review of literature was done for this unusual tumour type presentation.***

Keywords: psoas abscess, carcinoma cervix

1. Introduction

The presentation of a psoas abscess is commonly seen in conjunction with infection, especially tuberculous. Involvement of the psoas muscles with tumour, however, is extremely rare[1]. Muscular metastasis are rare, as their incidence is probably underestimated and under-reported[2].

Cervical cancer can be presented as an unusual and aggressive manner in human immunodeficiency virus (HIV)-positive women. There are case reports of psoas abscess which mimic metastasis from cervical carcinoma in HIV-positive patients. However, such cases are very rare in HIV-negative women with only few case reports available in the literature[3]. We report one case of psoas abscess mimicking metastasis with myositis of the thigh in a HIV-negative woman, which was initially clinically diagnosed as spinal tuberculosis.

2. Case Presentation

A 49-year-old immunocompetent lady presented with a progressively increasing left inguinal and lower quadrant abdominal mass since 4 months associated swelling and severe pain in left side of abdomen, hip and thigh ,non ambulant with progressive weight loss. The patient had severe unremitting back pain without radiating pain. The thigh swelling was over 2 weeks with severe tenderness of the thigh region all round the proximal region.

There were no medical premorbid conditions and there was no antecedent history of fever, trauma, genitourinary or gastrointestinal symptoms.

On admission, she was afebrile, vitals stable and chest clear for auscultation with no clinically detectable lymphadenopathy. Clinical examination revealed a warm, tender, fluctuant left lower quadrant abdominal mass with 15 x10 cm and with a severely tender, diffuse swelling around the left inguinal and medial aspect of the left proximal thigh. Left hip was in an attitude of flexion and Range of movement of the left thigh and knee was very painful and restricted.

Blood investigations showed increased total counts (16,570), increased C Reactive protein (8.5mg/dl), Raised ESR of 96mm/hr and Normal blood Sugar levels.

Plain films of pelvis and Lumbosacral region were normal except prominent left psoas shadow. Abdominal, Pelvic and Thigh Ultrasound showed the presence of heterogeneous density lesion in the Iliopsoas region and along the medial aspect of the left thigh with significant inflammatory changes. The left kidney showed signs of mild obstructive hydroureteronephrosis.

Computed tomography and Magnetic resonance imaging of Lumbosacral region and pelvis showed a collection in the left iliopsoas region measuring 9.7x 7.6 cm axially and with a craniocaudal span of about 24cm, extending upto the lower pole of left kidney and tracking down to medial part of the left thigh and along the greater sciatic notch toward the gluteal region. Heterogenous signal changes were noted in the ilium and acetabulum suggestive of reactive lesion. Subserosal anterior uterine and bulky cervix with extensive myositis and cellulitis of the left thigh was noted.

Extraperitoneal drainage of 2 litres of seromucinous pus was performed along with iliac bone biopsy. Histopathology revealed presence of high grade Pleomorphic carcinoma. In view of a bulky uterine cervix the cervical biopsy was done which showed the high grade squamous cell carcinoma. The patient was then graded for advanced cervical cancer and referred for chemotherapy.

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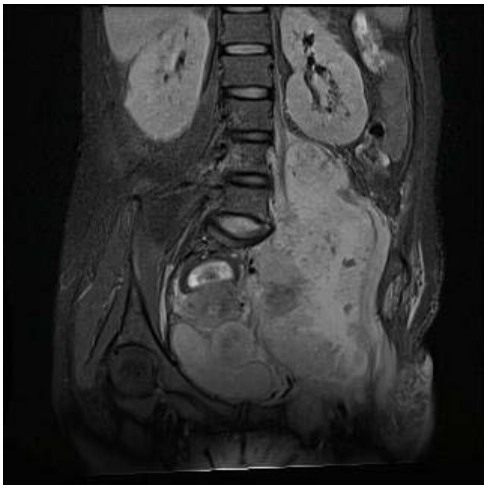


Figure 1: extent of abscess in mri

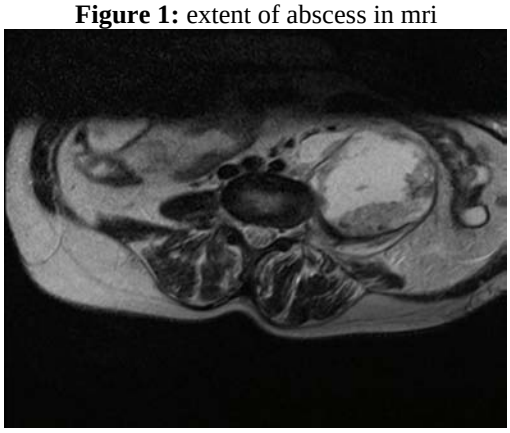


Figure 2: axial sections(mri)

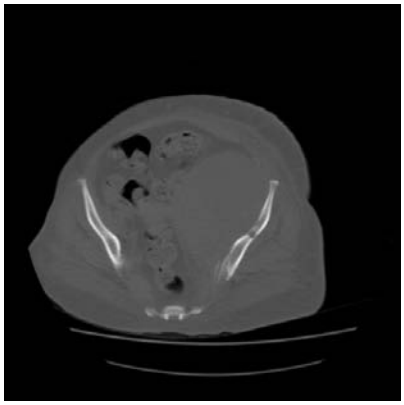


Figure 3: involvement of iliac crest



Figure 4: extent of psoas abscess until left hip

3. Discussion

Iliopsoas compartment being an extra peritoneal space contains the iliopsoas and iliacus muscles. Psoas major has origin from the transverse processes and bodies of the T12 and lumbar vertebrae. It lies beneath the arcuate ligament of the diaphragm superiorly and proceeds downward across the brim of the lesser pelvis, lying underneath the inguinal ligament and anterior to capsule of the hip joint. It ends into the lesser trochanter of the femur as a tendon that receives nearly the whole of the fibres of the iliacus muscle and is inserted. Thus, the space defined by the psoas fascia is a direct communication from the mediastinum to the thigh. It is innervated by the branches of L2, 3, and 4, and it is the primary flexor of the hip joint.

The psoas muscle lies in close proximity to organs such as the sigmoid colon, appendix, jejunum, ureters, abdominal aorta, kidneys, pancreas, spine, and iliac lymph nodes5. Infections in these organs or lymphatic spread to iliac lymph nodes with concurrent spread to the iliopsoas muscle can be explained. The abundant blood supply of the muscle is believed to predispose it to haematogenous spread from occult sites of infection.

The imaging of iliopsoas abscess should emphasis on the ultrasound, CT and MRI appearances. In patients with a known primary tumour, the possibility of iliopsoas metastasis, although uncommon should be considered[5].

Psoas abscess is a common but challenging entity[6]. Although retroperitoneal or psoas abscess is a usual clinical problem, the insidious and occult characteristics of this abscess sometimes cause diagnostic delays, resulting in considerably high morbidity and mortality[7]. Moreover the clinical assumption that it is invariably tuberculous in nature can lead to pitfalls.

Hematogenous metastasis to the psoas muscle is rare, and the resulting clinical symptoms may mimic psoas abscess or hemorrhage. When the clinical history is not specific, CT is important in documenting the presence of a psoas mass and providing biopsy guidance for histologic diagnosis[8]. The fact that carcinoma of a pelvic organ could be a cause of psoas abscess along with cellulitis in the thigh should be considered, when an unexplained psoas abscess is diagnosed.

The osteolytic pelvic bones represented an unusual presentation of any bony cervical carcinoma metastases. In these circumstances, good communication between pathologists, radiologist and clinicians is important to avoid misinterpretation as a diagnosis of infective psoas abscess[9]. Our patient represents the first case of metastatic psoas abscess along with the myositis of thigh due to carcinoma of cervix in a non HIV negative patient. We reiterate the need for tissue biopsy in all cases of Psoas abscess. This will help prevent misdiagnosis and wrong treatment of a psoas abscess as tuberculosis, given the high prevalence of tuberculosis in the general population.

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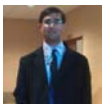
4. Conclusion

Psoas abscesses can be varied in etiology. A high index of clinical suspicion for non-tuberculous etiologies combined with biopsy of all psoas lesions to make a histologic diagnosis definitely decreases the incidence of both misdiagnoses and mistreatment.

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