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Original Research Paper

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A RARE PRESENTATION OF MYCOTIC PSEUDOANEURYSM OF EXTERNAL ILIAC ARTERY IN PATIENT OF PSOAS ABSCESS : CASE REPORT

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ABSTRACT Mycotic pseudoaneurysms of the iliac arteries have been reported in patients with psoas abscesses. These mycotic pseudoaneurysms lead to complications in cases of trauma, surgical or interventional procedures. Here we report a case of mycotic pseudoaneurysms arising from the external iliac artery in a 48-year-old man who is a diagnosed case of HIV-AIDS for the last 15 years and on treatment since then. The patient presented as painful, tender swelling in the right lumbar and right iliac region. On ultrasonography, findings were suggestive of psoas abscess and mycotic pseudoaneurysms of the external iliac artery. To further investigate the ultrasonographic findings, contrast-enhanced computed tomography (CECT) was done. We present this case to highlight the importance of considering vascular complications as a differential diagnosis in patients presenting with mass or pressure symptoms in different parts of the body. If such lesions remain undiagnosed, then such lesions may result in serious consequences.

KEYWORDS : Mycotic, pseudoaneurysms, external iliac artery, psoas abscess, HIV-AIDS

INTRODUCTION :

Multiple works of literature have been published to date about the mycotic pseudoaneurysms in an external iliac artery in patients post-renal transplant, in intravenous drug users. But, to date, very few cases have been reported about the mycotic pseudoaneurysms in patients with psoas abscess. Aneurysms and other vascular lesions can involve different arteries in the body and therefore may only be discovered during a routine investigation of non-specific symptoms such as pain. Failure to identify such lesions on imaging studies may result in attempted intervention with catastrophic events. We present the first case of an external iliac artery mycotic pseudoaneurysms in a patient with a psoas abscess presented as a right lumbar and right iliac region collection to draw attention to such scenarios and highlight the importance of considering the possibility of a vascular lesion.

CASE REPORT :

We present a case of a 48-year-old male who is a known case of HIV-AIDS for 5 years on ART presented with a 1-month history of right lumbar, right iliac region swelling and right lower limb swelling associated with pain, tenderness, and fever. The pain was severe and was interfering with the patient's activity. The patient had a history of weight loss for 1 month. He had no bladder or bowel dysfunction or other systemic manifestations. On examination, a vague palpable mass was found on the right side of the abdomen in the lumbar and iliac region. The initial blood investigations were unremarkable. The patient was referred to the radiology department for ultrasonographic evaluation. Ultrasonography was performed on "MINDRAY DC-60" ultrasonography equipment, on ultrasonography 9.6 cm x 7.8 cm x 6.8 cm measuring right psoas abscess was visualized (Fig 1), causing mycotic pseudoaneurysms of a right external iliac artery (Fig 2). To further evaluate the ultrasonographic finding contrast-enhanced computed tomography (CECT) was advised. Contrast-enhanced computed tomography of the patient was performed on a "SIEMENS SOMATOM Definition AS 128 slice" equipment. Contrast-enhanced computed tomography revealed collection on the right side, extending from origin to the insertion of the psoas muscle (Fig 3). 11.2 x 7.4 x 6.4 cm mycotic pseudoaneurysms arising from the right external iliac artery were noted (Fig 4). Extrinsic mass effect was noted over adjacent structures due to pseudoaneurysms.

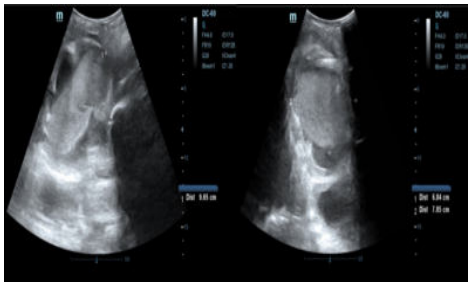

Fig 1 : Ultrasonographic images of 9.6 cm x 7.8 cm x 6.8 cm measuring right psoas abscess.

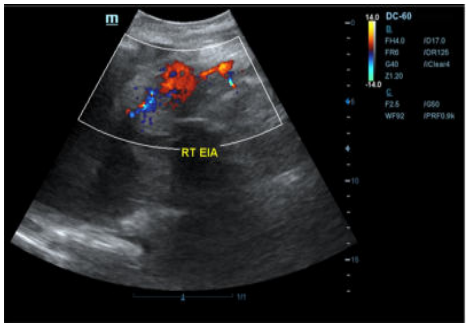

Fig 2 : Mycotic pseudoaneurysm of right external iliac artery

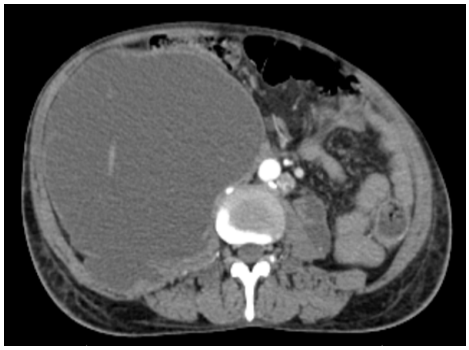

Fig 3 : Contrast enhanced computed tomography revealed collection on the right side, extending from origin to the insertion of psoas muscle, on axial section.

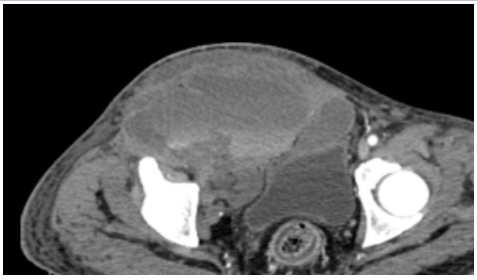

Fig 4 : Collection on the right side, extending from origin to the insertion of psoas muscle, on cross-section CECT image (case report).

antibiotics. They are now rare in clinical practice constituting only 1-3% of all arterial aneurysms[1]. A mycotic aneurysm is the dilation of an arterial wall due to infection. Pathologically, the vessel wall which becomes infected with bacteria is digested and then causes a false aneurysm which is unstable and prone to rapid expansion and rupture of the artery[1,2]. The term "mycotic" was coined by Willaim Osler in his Gulstonian lectures, where he described a man with multiple aortic mycotic aneurysms in a patient with valve vegetations, which resembled the appearance of a fleshy fungus[3].

The external iliac artery (EIA) is the larger of the two terminal branches of the common iliac artery (CIA). The common iliac artery bifurcates into the internal iliac artery and external iliac artery at the level of the pelvic brim anterior to the sacroiliac joint. The external iliac artery courses medially along with the iliopsoas muscle. After it enters the thigh under the inguinal ligament, it changes name and continues as the common femoral artery, supplying the lower limb. Gonadal vessels, genital branch of the genitofemoral nerve, deep circumflex iliac vein, round ligament are situated anterior to it. Iliac fascia, psoas muscle are present posterior to the external iliac artery.

Few case reports have been published previously regarding the mycotic pseudoaneurysm of external iliac arteries occurring in post-renal transplant patients. But, here we present a case of external iliac artery pseudoaneurysm occurring as a complication of psoas abscess in an immunocompromised patient. Mycotic pseudoaneurysm may be asymptomatic and discovered incidentally on a routine kidney scan or may present with fever, anemia, abdominal pain, a pulsatile and expanding mass, or hemorrhagic shock[4]. In such patients, the symptoms of psoas abscess will mask the presence of underlying mycotic pseudoaneurysm. Thus it becomes very important to thoroughly investigate such cases and advice the patient for further management.

Small, asymptomatic pseudoaneurysms can be managed conservatively by regular monitoring, while early diagnosis and timely operation might be the most important factors in the survival of patients with mycotic pseudoaneurysms[6]. But, the larger ones will require surgical or endovascular repair.

Mycotic pseudoaneurysms may lead to complications in cases of trauma or during a surgical procedure which can be life-threatening. In this case, as per the history given by the patient, who is a 48-year-old male, a diagnosed case of HIV-AIDS since last 10 years and on treatment since then; presented as painful and tender swelling in the right lumbar and right iliac region. On ultrasonography, findings were suggestive of psoas abscess and mycotic pseudoaneurysms of the external iliac artery. To further evaluate the ultrasound findings, contrast-enhanced computed tomography (CECT) was done. We present this case to highlight the importance of considering vascular complications as a differential diagnosis in patients presenting with mass or pressure symptoms in different parts of the body. If such cases remain undiagnosed, they may cause life-threatening complications in these patients. And if such cases are diagnosed before the complications, it will prevent fatal complications and will improve the outcome in such patients.

CONCLUSION: This case report will lead to a new approach in the evaluation of psoas abscess and its complications. This has put forth a different cause of external iliac artery mycotic pseudoaneurysm, which has been observed only in cases of post renal transplant patients mainly. Having this approach in the evaluation of patients presenting with the above-mentioned complaints will help to reduce future complications and can prevent life-threatening complications (eg. Ruptured pseudoaneurysm) by early diagnosing and treating the patients with endovascular or surgical intervention.

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