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(CASE REPORT)

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A case report of bilateral psoas abscess with co-existing gluteal abscess in Pott`s disease of the spine in a middle-aged woman in a Specialist Hospital

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Abstract

Psoas abscess (PA) is the buildup of suppurative fluid in the fascia surrounding the psoas/iliopsoas muscle, is a rare condition, with diagnostic difficulty. Pott`s disease also called spinal tuberculosis occurs due to extra pulmonary tuberculosis. Backpain, fever, weight loss, lump in the groin and limping are its main symptoms. Curable by administering antitubercular therapy and sensitive antimicrobials with analgesics for indicative relief. Surgical procedures can be carried out to eliminate the accrued fluid based on the inter individual degree of presentation.

In this case report, we report a rare case of bilateral psoas abscess with co-existing gluteal abscess and Potts's disease. A 48-year old female presented with complaints of backpain, limping, lump in the flank/buttock and fever of two weeks.

Abdominopelvic computed tomography scan showed massive right iliopsoas muscle collection with extension into the ipsilateral gluteal region and subcutaneous tissue. Similar collection was seen in the left psoas muscle superiorly. The bone window of the lumbosacral spine showed the anterior wedged collapse of the vertebral bodies with gibbus deformity. The patient had spontaneous rupture of the gluteal collection and surgical drainage of the right iliopsoas and left psoas collection was done. Anti-Kochs therapy was commenced and patient is currently doing great.

The introduction of computed tomography (CT) and magnetic resonance imaging (MRI) has greatly improved the diagnosis of psoas abscess with Pott`s disease or in its isolated forms.

Keywords: Bilateral psoas abscess; Gluteal abscess; Pott`s disease; Middle-aged woman; Computed tomography

1. Introduction

Accumulation of purulent fluid within the psoas muscle is infrequent.[1,2] Backpain with limited function, fever, and raised white blood cells are some of the clinical appearance.[3] Rapid diagnosis centers on retaining a high degree of suspicion, as the signs and symptoms may be diffuse, non-specific and chronic.[4-7] Since the psoas musculature extends from the lowest thoracic to the five lumbar vertebrae to the lesser trochanter of the femur, differentiation from pathologies around the hip joint is stressed.[8-14] Note the muscle itself occasionally acts as a channel for the spread of suppuration, and disseminations to the hip joint [8, 15-17], the thigh[18], and even the calf[4] have been documented. Nevertheless, only a limited case of uncommon spread of psoas abscess to the flank[3,19] or buttock[20] have been detailed. If the initial manifestation were a flank or buttock mass it will be a difficult task for a clinician to suspect the presence of psoas abscess.

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We present a case of bilateral psoas abscess with co-existing gluteal region abscess and Pott`s disease, with initial clinical presentation of which was painful swelling of the buttock/flank and back pain. This diagnosis was made radiologically using computed tomography with the administration of contrast, which gave away the diagnosis by its characteristic presentation of rim enhancement.

Aim/objective

To report the rare presentation of psoas abscess which on its own is a rare condition in our setting as well as add to the already existing knowledge of the helpful use of contrast enhanced computed tomography and /or magnetic resonance imaging(MRI) in confirming the diagnosis of this rare disorder.

2. Case report

Our case study is a 48-year-old woman who presented to the Radiology department for a contrast enhanced computed tomography of the abdominopelvic region, on account of right flank/buttock swelling, back pain, limping and fever of two weeks.

On physical examination, patient's been in severe pain, limping, vital signs were normal and throughout her stay in the CT suite. A contrast computed tomography and shows huge rim enhancing collection in the right iliopsoas, gluteal/subcutaneous regions and a small volume in the left psoas muscle. Anterior wedged collapse of T12/L1 vertebral bodies is noted with gibbus deformity is seen in the bone window.

The patient had spontaneous rupture of the gluteal collection and surgical drainage of the right iliopsoas and left psoas collection was done.

Anti-Kochs therapy was later instituted and patient is currently doing great.

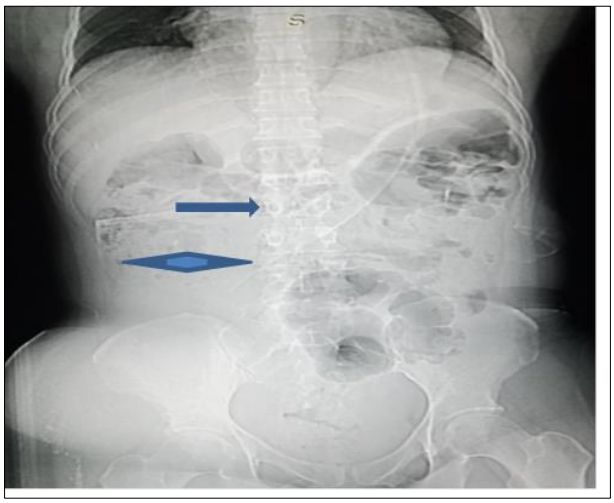

Figure 1 Is a scanogram image of the abdominopelvic region showing the a soft tissue density bulge on the right gluteal region, the psoas muscle shadow on the right is widened(short double edged blue arrow) and kissing vertebral bodies with features of wedged collapse/fractures(slim long blue arrow)

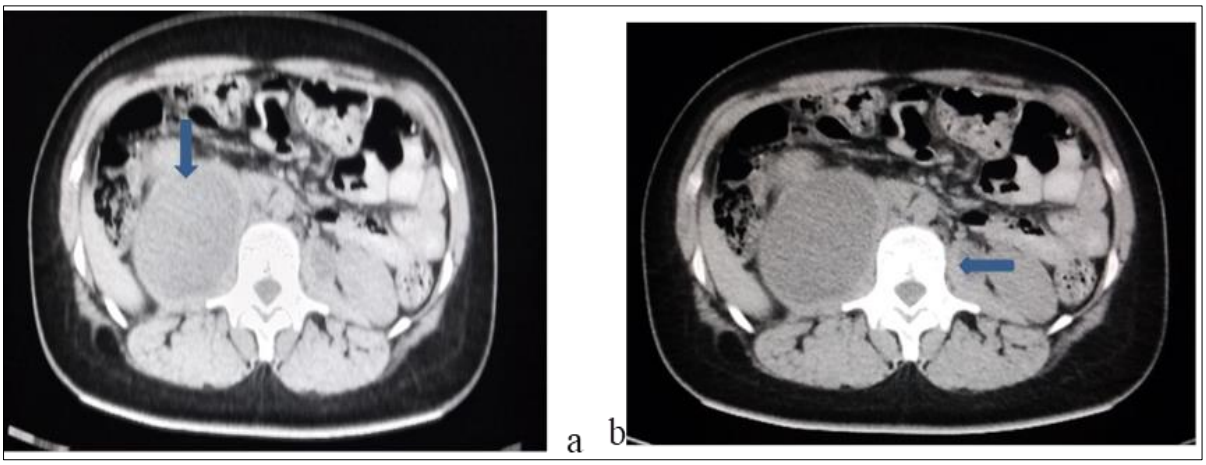

Figure 2a and 2b are axial non-contrast enhanced and contrast enhanced CT scan images of the abdomen showing the both psoas muscles with collections seen within. It showed rim enhancement with administration of contrast.(slimmed body blue arrow for right psoas muscle and yellow slimmed body arrow for left psoas muscle respectively)

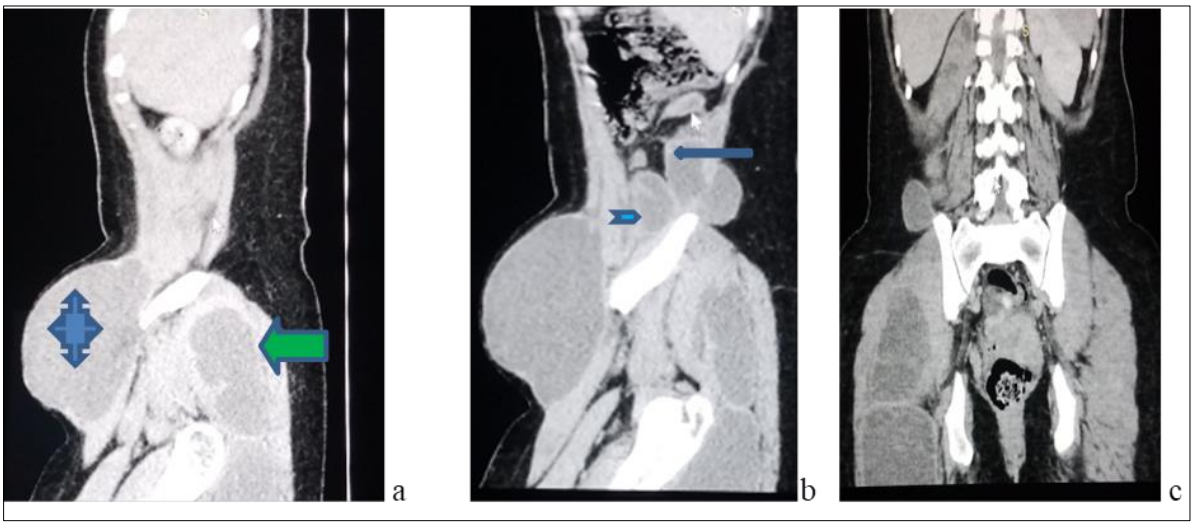

Figure 3a-b are reformatted sagittal non-contrast enhanced and contrast enhanced CT scan images and c is reformatted coronal contrast enhanced CT scan views showing both the flank/subcutaneous bulge/collection(four edged blue arrow), the gluteal region collection(big green arrow) and the psoas(slimmed body red arrow)/iliopsoas muscle(chevron blue arrow) collection/abscesses

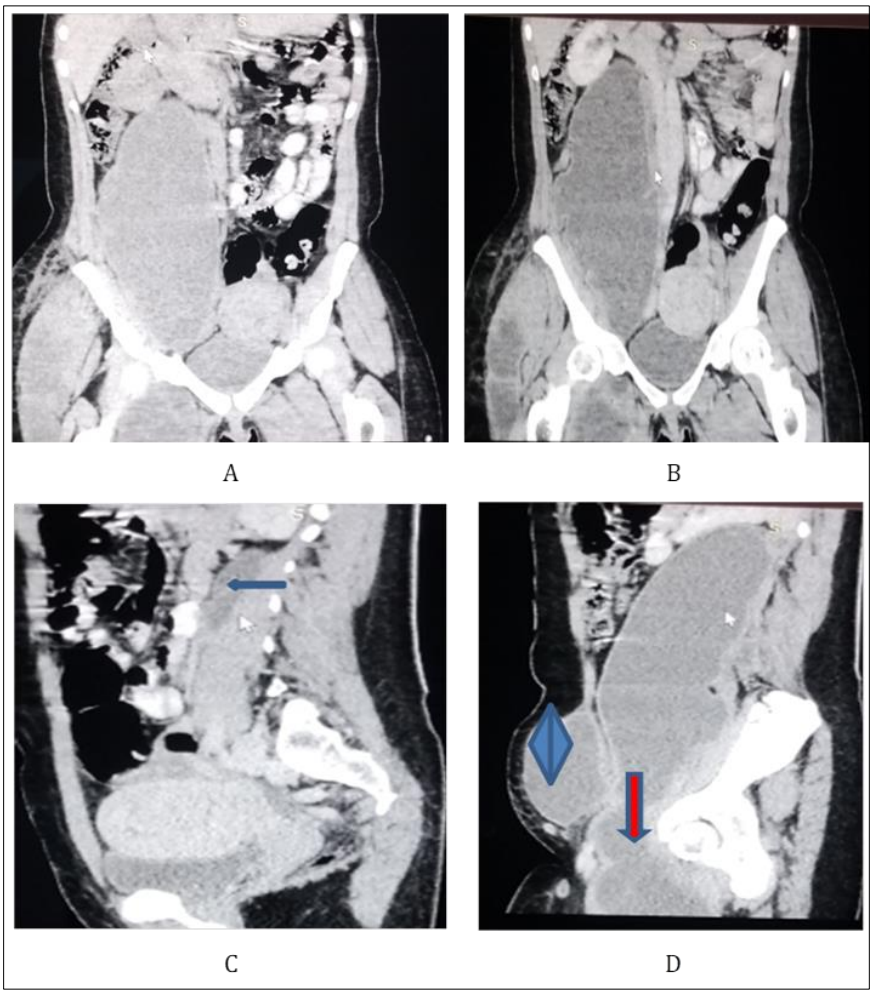

Figure 4a-b and 4c-d are coronal and sagittal reformatted non-contrast and contrast enhanced CT scan images respectively. They also showed the abscess/collections with its extension from the abdomen into the pelvic(red arrow-image d), gluteal region and the subcutaneous /flank region (doubled edged blue arrow-image d) respectively. Image c is showing the left psoas muscle collection/abscess (blue slimmed body arrow)

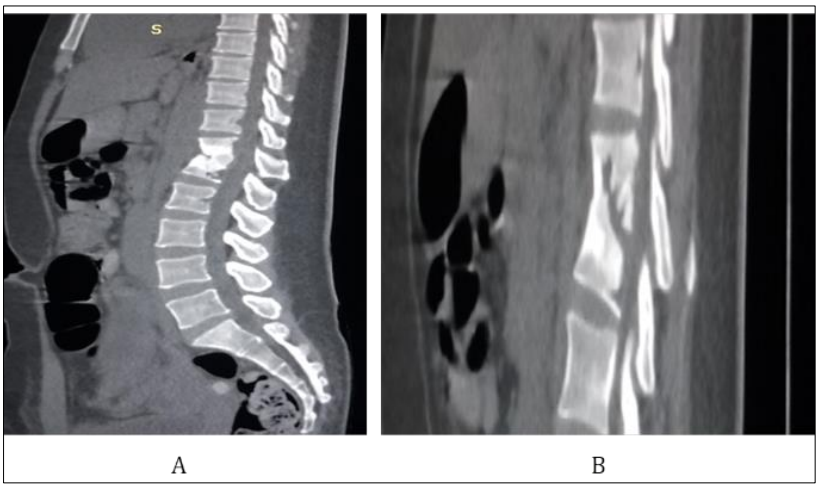

Figure 5a is vertebral window of the sagittal reformatted CT scan showing the levels of the affected vertebrae(T12 and L1). It showed anterior wedged collapse of the aforementioned vertebrae with gibbus deformity Figure 5b is a close-up view.

3. Discussion

Notably psoas abscess is rare[1,2] and those presenting as extra pelvic extension are even more infrequent. Psoas abscess that spreads to the over the iliac wing and presents as a flank or buttock abscess is a much scarcer clinical features, with only a few case reports in the medical literature.[3,9,19-22]This is in keeping with the findings in this current case report.

Even though the universal occurrence was considered to be only 12 cases per year[1,2,]it is more regularly diagnosed and reported with arrival of CT and MR imaging.[2,23] The psoas abscess is considered primary if the cause is hematogenous seeding from a distant site and secondary if there is contiguous infectious source from vertebrae, kidney, ureter, appendix, bowel, or hip joint and pancreas [1,2, 24]. Our case was secondary psoas abscess, which extends to adjacent retroperitoneum and buttock through the abdominal. The predisposition of the psoas muscle as primary type is ascribed to its rich blood supply and nearness to overlying retroperitoneal lymphatic channels. [25,26] Since the iliopsoas muscle inserts onto the lesser tubercle of the proximal femur, it is likely that the psoas abscess might spread to the medial side of the thigh under the inguinal canal[18] or to the hip joint. [8,15-17] This corroborates our findings. Calf involvement has also been reported.[4] Still, extension of the psoas abscess to the buttock over the iliac wing is an extremely rare clinical manifestation.[27]This finding is in tandem with that seen in our case report. Regional spread into the retroperitoneum from psoas abscess and to the extra-pelvic extension over the iliac wing via the weak abdominal wall lateral to the paraspinal musculature could be speculated in our case. Additionally, piriformis and gluteal abscesses have also been described.[21] The radiological relevance of our case is that the psoas abscess could be a rare cause buttock abscess. It is worthy of note that there is an associated tuberculous spine infection which is the most common causative organism half a century past.[28] This contradicts a case report wherein there was no causative pathogen seen.[27] Staphylococcus aureus is the most common causative organism in primary form of psoas abscess and enteric organisms in secondary in secondary form.[2,4, 24]. Appendicitis, pancreatitis, Chron`s disease and pyelonephritis are implicated as rare etiology of psoas abscess in addition to the origin of infection.[25,27] Tuberculous spinal infection was seen and anti-tuberculous therapy was initiated.

4. Conclusion

We document a rare radiological manifestation of buttock/gluteal/subcutaneous abscesses from unusual extra-pelvic extension of a psoas abscess and Pott`s disease. Radiology is indeed the eye of modern medicine and so one cannot overemphasize the role imaging plays in the management of patients in our health facility.

Compliance with ethical standards

Disclosure of conflict of interest

Verbal/written consent was obtained.

Authors contribution

VNA- Manuscript conceptualization, reviewed the manuscript, performed and interpreted the radiological studies, CW-manuscript conceptualization, reviewed and edited the manuscript and OYI-reviewed and edited the manuscript.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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