

Psoas abscess involving a renal-digestive fistula: A case report

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World Journal of Advanced Research and Reviews, 2024, 21(02), 823–825

Publication history: Received on 31 December 2023, revised on 08 February 2024, accepted on 11 February 2024

Article DOI: <https://doi.org/10.30574/wjarr.2024.21.2.0486>

Abstract

A psoas abscess is a rare but not exceptional entity. Given its rarity and non-specific symptomatology, as well as its generally insidious subacute onset, diagnosis and treatment are often delayed. We present the case of a 40-year-old patient with a psoas abscess due to *E. coli* pyelonephritis, complicated by a renal-colic fistula. Clinicians should bear in mind that a psoas abscess is often diagnosed before primary disease is detected, and should be alert to these primary lesions. Follow-up of at least one year is recommended due to relapse reported in 15-36% of cases up to one year after initial presentation.

Keywords: Psoas abscess; Renal lithiasis; Pyelonephritis; Renocolic fistula; Surgical drainage; Nephrostomy

1. Introduction

Psoas abscesses are uncommon, accounting for less than 10% of abdominal suppurations (1) (2). They may be primary or secondary. Primary psoas abscesses are generally due to the extension of an intra- or retroperitoneal infection, and are more often monomicrobial. Diagnosis is based on a combination of clinical, radiological and biological factors.

2. Observation

The patient was 40 years old, with a history of undocumented lithiasis and a history of stone discharge. He was admitted to our clinic for management of a painful swelling of the left dorsal area. Clinical examination on admission revealed a conscious, tachycardic, polypneic patient, febrile at 39°, normotensive, with a painful, fistulous swelling of the left dorsal area and a Sofa Q score of 1. Biological findings included microcytic hypochromic anemia, hyperleukocytosis at 15,000 elements/mm³ and normal renal function. Radiological investigation by ultrasound and abdomino-pelvic CT scan revealed obstructive left pyelonephritis upstream of pyelic coralliform lithiasis, complicated by a urodigestive fistula between the upper calcific group and the left colon, and by abscessed collections of the psoas and left anterolateral and posterior soft tissues. The initial course of action was to admit him to the operating room, where he was conditioned, filled with saline and given a blood transfusion. He then underwent a left nephrostomy and surgical drainage of the psoas abscess, with pus sampling which came back positive for *Escherichia Coli*, and he was put on appropriate antibiotics. The patient also underwent an enteroscan, which came back in favour of the same diagnosis, and in particular no signs of chronic inflammatory bowel disease. Progress was good, with a reduction in white blood cells and CRP, and a CT scan of the abscess showed clear regression. A colonoscopy was performed at a distance, showing no fistula and no chronic inflammatory bowel disease on the various biopsies. The patient will be scheduled for left percutaneous nephrolithotripsy (PCNL) to treat the calculi.

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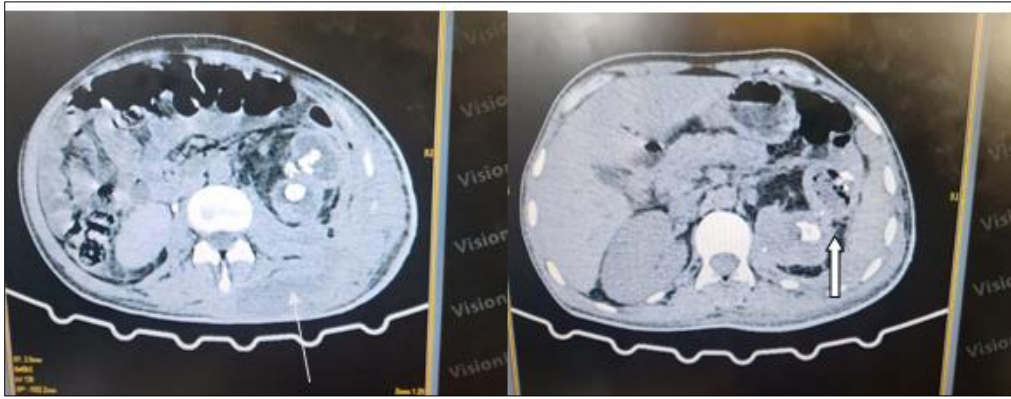


Figure 1 Abdomino-pelvic CT scan revealing obstructive left pyelonephritis complicated by a psoas abscess and uro-digestive fistula

3. Discussion

Psoas abscesses are a rare but not exceptional entity, incriminated in 5-10% of abdominal suppurations (3). They may be primary, with no detectable cause, or secondary to a neighbouring infection: urological (pyonephrosis, perirenal infections), digestive (digestive cancer, diverticulitis, Crohn's disease, appendicitis) or osteoarticular (sacroiliitis, spondylodiscitis, osteomyelitis, etc.). Tuberculosis origin is rare in developed countries, but frequent in tuberculosis-endemic areas, notably Morocco, with an incidence of 36,000 cases in 2017.

The clinical signs of psoas abscesses are not very specific, which explains the difficulty and frequent delay in diagnosis. The main symptoms are fever, low back pain and, occasionally, psoriasis. Patients with psoas abscesses often have limited hip movement. Pain is exacerbated by stretching movements of the psoas muscle. This "psoas sign" is a pain caused by hip extension, and is associated with a decrease in pain when the hip is flexed, can be useful to the clinician in diagnosing the condition (4). The pathogens involved are most often *Staphylococcus Aureus* and *Enterobacteriaceae* (*Escherichia Coli* and *Klebsiella Pneumoniae*), in our patient, the germ was *Escherichia Coli*. (3)

The CT scan is the key examination for positive diagnosis (5), and with the injection of contrast medium, a positive and etiological diagnosis can be made. It is also useful for percutaneous drainage of psoas collections. In our patient, the CT scan enabled us to diagnose the psoas abscess and determine its renal infectious origin, as well as the renal-colic fistula. Renodigestive fistulas are rare, accounting for only around 5% of all urodigestive fistulas. Among renodigestive fistulas, renocolic fistulas are the most common, followed by renoduodenal fistulas (6). Closure of the colonic fistula is achieved by simple suture or by anastomotic resection of the colon, which can be performed in one or two stages (6) (7).

Gadolinium-injected weighted-sequence MRI can also be useful in diagnosing psoas abscesses, although it is rarely used.

Treatment consists of surgical or radiological drainage combined with antibiotic therapy adapted to the germ found in the bacteriological samples. Our patient underwent surgical drainage with antibiotic therapy based on C3G, aminoglycosides and metronidazole for six (6) weeks. It should be noted that the optimal.

4. Conclusion

Reno-colonic fistulas are rare. Their origin is most often renal. Positive diagnosis is made by CT scan and bacteriological sampling, and the presence of tuberculosis must always be sought, even in cases of associated pathology. Treatment is almost always nephrectomy with suture or anastomotic resection of the incriminated digestive segment. In our patient, treatment initially consisted of surgical drainage of the fistulized psoas abscess to the skin, combined with broad-spectrum antibiotic therapy and deferred treatment of the renal-digestive fistula.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

The present research work does not contain any studies performed on animals/humans subjects by any of the authors.

Statement of informed consent

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

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