Bilateral Psoas Abscess and Extensive Soft Tissue Involvement Due to Late Presentation of Pott's Disease of the Spine

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Abstract Pott's disease of the spine with psoas abscess is currently rare form of Extra- pulmonary tuberculosis (TB) in the developed countries, however it is still seen in areas where TB is endemic. We describe a rare case if not the first (according to our knowledge) of bilateral ruptured psoas abscess with extensive tissue necrosis and pelvic organs exposure with limited neurological deficit presented late in young girl. In this case Pott's disease was associated with extensive tissue necrosis exposing pubic bones, urinary bladder and psoas muscle.

Keywords Pott's disease · Bilateral psoas abscess · Pelvic organs exposure

Introduction

Pott disease, also known as tuberculous spondylitis, is one of the oldest demonstrated diseases of humankind, Percivall Pott, for whom Pott's disease is named, presented the classic description of spinal tuberculosis in year 1779 [1]. Pott's disease is usually secondary to an extraspinal source of infection. The basic lesion involved in Pott's disease is a combination of osteomyelitis and arthritis that usually involves more than one vertebra. Para spinal and psoas abscesses secondary to Pott's disease of the spine can develop, and extend to the skin or adjacent structure. Patients present with local pain, constitutional symptoms or paraplegia due to cord compression [2].

Psoas abscess generally spread along the muscle sheath, thus in some cases it is palpable below the inguinal ligament on the medial aspect of the inguinal region. Appropriate treatment for non-complicated abscesses is retroperitoneal drainage when diagnosis is early, otherwise debridement of all necrotic tissues should be carried out [3].

Case Report

A 13 years old girl presented with four months history of backache, fever with night sweating, malaise and weight loss. Over the last two months the patient developed bilateral groin swelling which was painful, tense, increasing in size with skin changes and finally ulcerated with pus discharge. Lately the patient had mild lower limb weakness without loss of sensation or urinary or fecal incontinence. Systemic review, past medical and family history was not significant. The patient tribe is nomads moving across the borders. On physical examinations the patient was lying supine, looks ill febrile, pale with bilateral inguinal ulcers, 8×7 cm on the left side and 6×6 cm on the right side. Pubic bones, urinary bladder and psoas muscle were all exposed. Lungs were clear, there was no abdominal distension or tenderness or palpable masses. Upper limbs were of normal tone, power, sensation and reflexes.

There was bilateral lower limb weakness with grade IV power with normal tone and diminished reflexes, while sensation was intact with negative Babinski's sign. There was tenderness over T12-L1 spine with no obvious kyphosis.

Laboratory findings were as follows :Hb 8.9 gm/dl ,TWC $15 \times 10^9/L$ (mainly lymphocytes), tuberculin skin test was positive, sputum for AFB was negative, ESR was 142 mm/hour , urine analysis was normal, HIV screening was negative ,microbiological culture of pus and tissues was positive for AFB(Mycobacterium TB).

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Radiologically, CXR was clear, abdominal XR showed obliteration of psoas shadows bilaterally, spinal X-ray showed features of tuberculous spondylitis.

Extensive debridement was done followed by daily dressing with Normal Saline and Povidone Iodine. Patient was started on Streptomycin, Rifamicin and Isonizide.

Good response observed within three weeks, patient started to gain weight, improved lower limb weakness with gradual wound healing and reduction in pus discharge.

(Pictures showing extensive ulceration with pelvic organs exposure.)

Discussion

Psoas abscesses are classified to primary and secondary according to the cause. Primary psoas abscess has no obvious cause, while secondary ones result from direct extension from an adjacent organ [3]. Secondary psoas abscess usually caused by enteric bacteria, while Lymphogranuloma Venereum and brucellosis are implicated in some cases. Other causes of retroperitoneal extension of infection are Crohn's disease, colonic cancer, pyelonephritis, pleural empyema, and as a postoperative complication in spinal, urological or abdominal surgeries [4]. Management depends on proper clinical assessment with laboratory, microbiological and radiological investigations.

Treatment includes abscess drainage and debridement of necrotic tissues along with antituberculous medications. Spinal surgery was not indicated in this patient as it is indicated only in selected cases with neurological deficit not improving on anti-tuberculous therapy [5]. Historically, Pott's disease was a common cause of psoas abscess, but recently it became less prevalent except in HIV patients [6]. Our patient is a rare case in being young, with no immunosuppressant illness or medication that present with advanced soft tissue involvement without correlating neurological deficit.

In conclusion, psoas abscess secondary to Pott's disease of the spine is not a rare condition but bilateral psoas abscess with extensive tissue necrosis and other organs involvement and exposure present a rare picture due to delayed presentation as described in this case.

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