

Iliopsoas abscess in puerpera – case report

Abscesso de iliopsoas em puérpera – relato de caso

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ABSTRACT

Iliopsoas abscess (IPA) is a rare entity that may affect women in the puerperal stage. Due to the peculiar anatomy of the iliopsoas muscle, its manifestations can be insidious and nonspecific. Its early treatment based on broad-spectrum antibiotics and drainage can significantly decrease mortality.

Key words: Psoas Abscess; Psoas Abscess/therapy; Psoas Abscess/cirurgia; Psoas Muscles/cirurgia; Postpartum Period.

RESUMO

O abscesso de iliopsoas (AIP) é entidade rara, podendo acometer mulheres em sua fase puerperal. Devido à anatomia peculiar do músculo iliopsoas, suas manifestações podem ser de forma insidiosa e inespecífica. Seu tratamento precoce pode diminuir significativamente a mortalidade, com base na antibioticoterapia de largo espectro e sua drenagem.

Palavras-chave: Abscesso do Psoas; Abscesso do Psoas/terapia; Abscesso do Psoas/cirurgia; Músculos Psoas/cirurgia; Período Pós-Parto.

INTRODUCTION

Iliopsoas abscess (IPA) is a rare entity corresponding to the formation of a purulent collection in the intimacy of iliopsoas. It can be primary or secondary. Primary IPA results from the hematogenous or lymphatic dissemination of a distant focus. Secondary IPA results from the direct expansion of an inflammatory/infectious process near the iliopsoas.^{1,2} The most common disease associated with secondary IPA is Crohn's disease.³ However, there are other conditions associated including appendicitis, ulcerative colitis, diverticulitis, and colorectal carcinoma, urinary tract infection (UTI), and upper urinary tract instrumentation.^{4,5}

Carriers of the human immunodeficiency virus are more prone to this infection^{6,7} as well as those with direct trauma of the iliopsoas muscle.³ In pregnant women, it may be associated with a small bruise, infected after childbirth,^{1,6} especially associated to contamination by the contiguity to episiotomy.^{8,9}

The peculiar anatomy of the psoas muscle and its fascia puts it in direct relationship with mediastinal structures up to the thigh. The muscle fibers are close to viscerae such as the sigmoid, appendix, jejunum, ureters, kidneys, pancreas, spinal cord, lymph nodes, and iliac, and any misdiagnosed disease in those organs may manifest as psoas abscess.¹⁰

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CASE REPORT

Primiparous, with 30 years of age, on the 30th postpartum day, was assisted a week ago in the emergency room with pain in the right buttock, irradiated to the ipsilateral thigh, initiated in the immediate postpartum, and since then, with no spontaneous improvement. She underwent computed tomography (CT) of the thoracolumbar spine, which did not reveal any alteration and was referred to ambulatory monitoring in use of non-steroid anti-inflammatory.

She was sent to the João XXIII Emergency-room Hospital with the same complaints from the previous week after normal gynecologic evaluation. She was admitted for hospitalization, and an increased intensity of lumbosciatalgia, parietic gait, functional limitation, and lower limb edema were observed without local phlogistic signs. The neurological exam was normal.

On the third day of hospitalization, bilateral edema, worsen on the right, negative Homans sign, and indurated edema in right sacral region were observed. The ultrasonography (US) with lower limbs Doppler did not show signs of deep vein thrombosis.

On the fourth day after her hospital admission, the pain intensified, with positive Thompson sign, negative Lasèqu e, without sensory alteration or equine tail syndrome.

The edema became more intense and extended to the middle third of the thigh, accompanied by axillary temperature of 39 °C, leukocytosis (50,400 leukocytes/mm³ and deviation to myelocytes); a new CT (Figure 1) of the lumbosacral region was performed, which allowed to establish the diagnosis of right psoas abscess. Broad spectrum antibiotics therapy was initiated with draining of the collection showing exteriorization of a large volume of odorless purulent secretion. Two large incisions were performed for secretion collection, which was cultured, and positioning of drains. A progressive clinical improvement was noticed. The culture of secretions collected from the region of psoas revealed the growth of *S. agalatie*. The antibiotic therapy was held for 14 days.

DISCUSSION

The mortality rate associated with psoas abscess is 2.5%, reaching up to 18.9% in case of treatment delay.¹¹ Since its initial description by Herman Mynter in 1881, about 400 cases have been described.^{8, 9, 12}

However, there are few descriptions of primary psoas abscess after vaginal birth.⁹

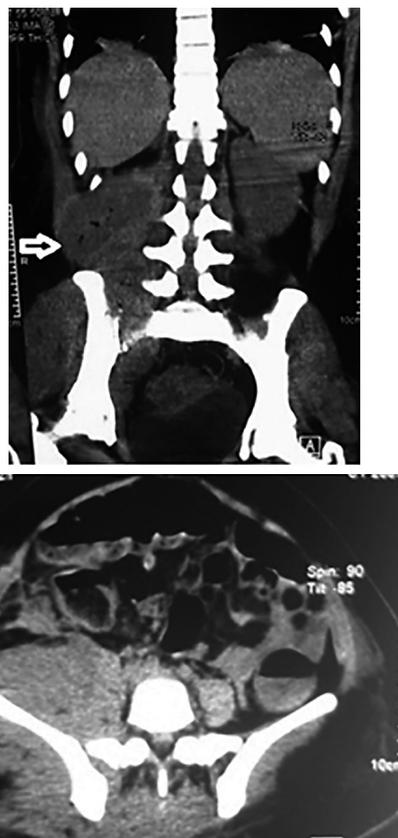


Figure 1 - CT evidencing the collection of iliopsoas.

The psoas abscess was initially characterized¹² by the triad of low back pain, lameness, and fever, which is found in 30% of cases.

Most patients present insidious and non-specific symptoms such as malaise and burning that can evolve with more specificity to those classically described, which makes its diagnosis difficult.

In this described case, the symptomatology was so nonspecific that at different times the patient was assisted by different clinics (General Surgery, Vascular Surgery, Orthopedics, Neurosurgery) with distinct diagnostic hypothesis.

It is important to consider the psoas muscle innervation (L2, L3, and L4) and associate it to complaints from the patient's pain. In addition, the psoas muscle abscess is a condition that must be considered in the postpartum associated with episiotomy, lower limb pain, and difficulty walking.

The most commonly associated organism is *S. aureus*¹⁴ but *Escherichia coli*, *Bacterioides sp*, *Mycobacterium tuberculosis*, *Streptococcus viridans*, *En-*

terococcus faecalis, *Peptoestreptococcus*, and *S. viridans* can also be found.¹⁴

The propaedeutic resource most widely accepted for the diagnosis of psoas muscle abscess with 80 to 100% of specificity for identification is the CT.¹⁵ US shows 50 to 60% of sensitivity for the diagnosis of this retroperitoneal disease.¹⁶

The treatment must be conducted with broad-spectrum antibiotics with coverage for *S. aureus*.¹⁷ Traditionally, the treatment of choice is open surgical drainage.¹⁸ The guided percutaneous drainage can be an effective and safe alternative.¹⁹

In this report, after the early difficulties for diagnosis, it was possible to obtain a diagnosis of psoas abscess in which CT was decisive, and the antibiotic intervention and surgical drainage were key for the recovery.

CONCLUSION

IPA is rare, has several causes, and can manifest in variable forms. It can become serious if not diagnosed and treated early. It is believed to be related to obstetric surgical procedures in the perineum (episiotomy) or acquired conditions in soft parts of the pelvic floor at the time of fetal expulsion (hematoma).⁸

The diagnosis is best established using imaging tests, preferably CT, and the physician's sharp suspicion is necessary for its early diagnosis.

The treatment of choice is broad spectrum antibiotics with coverage for *S. aureus* associated with effective drainage collection.

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