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RESEARCH ARTICLE

PSOAS ABSCESS:A RARE LOCALIZATION OF TUBERCULOSIS INFECTION

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Abstract

Psoas abscess is a rare disease with various etiologies. The most common pathogen in primary abscess is Staphylo coccus aureus. Crohn's disease is the most common cause of secondary abscess. Mycobacterium tuberculosis is considered an extremely rare cause of psoas abscess, The clinical manifestation is insidious, the classic symptoms are pain and fever. Computed tomography (CT) is the gold standard in the diagnosis and follow-up of retroperitoneal abscesses. The treatment of choice is percutaneous drainage guided by imagery. Surgical drainage should be reserved for cases of failure of percutaneous drainage, if possible via the extraperitoneal route, but in the event of a secondary abscess, the transperitoneal approach is preferred to correct the original disease.

Introduction:-

Tuberculosis is an infectious disease that can affect several organs and systems. It can involve almost the whole body, including the abdomen. Retroperitoneal involvement is rare. Extra-pulmonary tuberculosis remains a difficult diagnosis to make, because of its often non-specific manifestations. However, since there are no pathognomonic imaging findings, the diagnosis ultimately relies on histopathological and microbiological confirmation. Before the discovery of modern tuberculosis treatment, psoas abscess was a well-known complication of tuberculosis of the spine, where it was first described by Mynter in 1881, who called it psoitis. [1] We report a rare case of retroperitoneal abscess of the psoas whose

Observation:-

A 44-year-old woman was admitted to our surgery department for left cervical swelling. In these antecedents we find the notion of pulmonary tuberculosis treated in childhood. She had no surgical history. His history of the disease goes back to 2 months of his admission by the appearance of a left laterocervical lymphadenopathy increasing in size gradually with notion of dysphagia having motivated a consultation with a general practitioner. An abdominal ultrasound was ordered and revealed the presence of a cystic mass in the left iliac fossa measuring 13 × 6 cm, probably related to a left ovarian cyst. Furthermore, the patient presented no associated signs, and all progressed in a context of conservation of general condition and apyrexia. The clinical examination on admission found the patient to be hemodynamically and respiratory stable, with a temperature of 37°C, a heart rate of 75/min and blood pressure of 130/60 mmHg. The cervical examination objectified the presence of left laterocervicaladenopathies, on the other hand the abdominal examination was unremarkable. The biological assessment was normal with hemoglobin at 12.1 g/dl, white blood cells at 7610 /µl, urea at 0.18g/l, creatinine at 6.6mg/l and a CRP at 5.79mg/l. during the hospitalization an abdominal and cervical ultrasound was redone and which showed at the cervical level,

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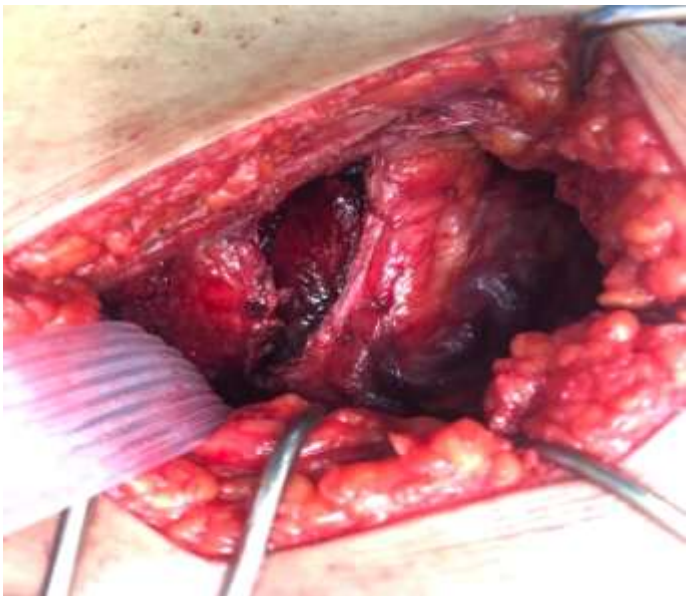
the presence at the left lateral level of an anechoic, heterogeneous, well-limited oval formation, regular contours, coming into contact with the jugular vein internal left, not taking the color Doppler measuring 15 × 38 × 36 mm in favor of left necrotic ADP. At the abdominal level, the presence of a cystic mass in the left iliac fossa measuring 136 × 61 mm very probably related to a left ovarian cyst. The radiological assessment was completed by a CERVICO-THORACO-ABDOMINO-PELVIC CT scan, the result of which was in favor of a necrotic ADP of the left IV chain, measuring: 42x19mm with the presence of a collection of the left psoas muscle, well limited, hypodense, enhanced at the periphery after injection of PDC, measuring: 61x66x107mm (APXT×H). And a left laterouterine mass, of pure fluid density, not enhanced after injection of PDC, measuring: 30x32mm, related to an ovarian cyst. (Figure 1) the presence of a cystic mass in the left iliac fossa measuring 136 × 61 mm most likely related to a left ovarian cyst. The radiological assessment was completed by a CERVICO-THORACO-ABDOMINO-PELVIC CT scan, the result of which was in favor of a necrotic ADP of the left IV chain, measuring: 42x19mm with the presence of a collection of the left psoas muscle, well limited, hypodense, enhanced at the periphery after injection of PDC, measuring: 61x66x107mm (APXT×H). And a left laterouterine mass, of pure fluid density, not enhanced after injection of PDC, measuring: 30x32mm, related to an ovarian cyst. (Figure 1) the presence of a cystic mass in the left iliac fossa measuring 136 × 61 mm most likely related to a left ovarian cyst. The radiological assessment was completed by a CERVICO-THORACO-ABDOMINO-PELVIC CT scan, the result of which was in favor of a necrotic ADP of the left IV chain, measuring: 42x19mm with the presence of a collection of the left psoas muscle, well limited, hypodense, enhanced at the periphery after injection of PDC, measuring: 61x66x107mm (APXT×H). And a left laterouterine mass, of pure fluid density, not enhanced after injection of PDC, measuring: 30x32mm, related to an ovarian cyst. (Figure 1) The radiological assessment was completed by a CERVICO-THORACO-ABDOMINO-PELVIC CT scan, the result of which was in favor of a necrotic ADP of the left IV chain, measuring: 42x19mm with the presence of a collection of the left psoas muscle, well limited, hypodense, enhanced at the periphery after injection of PDC, measuring: 61x66x107mm (APXT×H). And a left laterouterine mass, of pure fluid density, not enhanced after injection of PDC, measuring: 30x32mm, related to an ovarian cyst. (Figure 1) The radiological assessment was completed by a CERVICO-THORACO-ABDOMINO-PELVIC CT scan, the result of which was in favor of a necrotic ADP of the left IV chain, measuring: 42x19mm with the presence of a collection of the left psoas muscle, well limited, hypodense, enhanced at the periphery after injection of PDC, measuring: 61x66x107mm (APXT×H). And a left laterouterine mass, of pure fluid density, not enhanced after injection of PDC, measuring: 30x32mm, related to an ovarian cyst. (Figure 1) of pure fluid density, not enhanced after injection of PDC, measuring: 30x32mm, related to an ovarian cyst. (Figure 1) of pure fluid density, not enhanced after injection of PDC, measuring: 30x32mm, related to an ovarian cyst. (Figure 1)

Figure 1:- CT image showing a left psoas abscess (arrow).

Percutaneous aspiration of the mass, under ultrasound control, gave a mucinous liquid but insufficient for mycobacteriological examination. For this reason the indication of retroperitoneal surgical drainage was raised. The patient underwent surgery with extraperitoneal drainage through a Jalaguier incision in the left iliac fossa (Figure 2.3) obtaining 300 ml of purulent material from the psoas. (Figure 4)

Figure 2:- Retroperitoneal abscess that gives a bulging appearance of the posterior parietal peritoneum.



Picture 3:- Extraperitoneal drainage.

At the cervical level: a left cervical incision along the internal edge of the sternocleidomastoid muscle was performed with the discovery of a retro muscular abscess which was punctured and drained by a Redon drain. (Figure 5) The postoperative evolution of the patient was good. Discharge on D3 postoperative.

Figure 4:- Purulent appearance of drainage fluid.

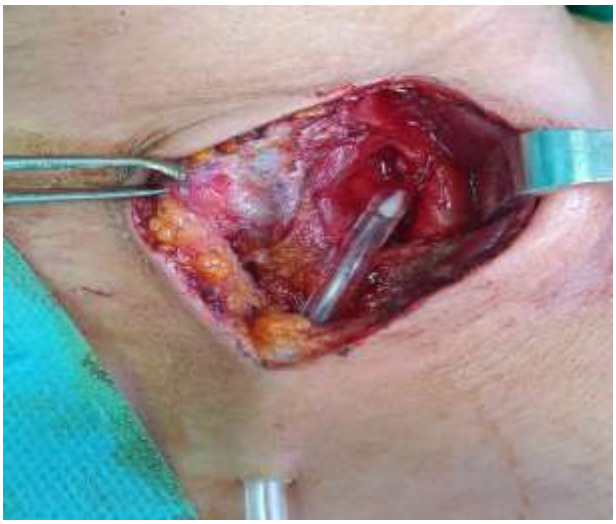


Figure 5:- Drainage of a left cervical abscess.

Histological examination was compatible with the presence of granulomas with caseous necrosis. The microbiological culture was positive for Mycobacterium tuberculosis. According to these results, the patient received antituberculosis treatment with isoniazid, rifampicin, pyrazinamide and ethambutol for 2 months. This treatment was followed by isoniazid and rifampicin for another four months without reporting any side effects. No other antibiotic was administered with a good clinical and radiological evolution on a control abdominal CT scan 6 months later.

Discussion:-

PR space infection is associated with delayed diagnosis and a high mortality rate, ranging from 22 to 46% [2]. Typical symptoms include non-specific and non-localized abdominal pain, variable gastrointestinal upset, and generalized symptoms, such as chills, sweating, fever, or malaise. About 10% of patients are asymptomatic [3]. Our patient reported no abdominal pain and no abnormalities or signs of peritonitis were found on abdominal examination. The only symptom was a history of progressive cervical adenopathy. Psoas abscess was first described by Mynter in 1881. It is relatively rare in Western countries. It can be primary due to infections from unknown foci that spread hematogenously, or secondary to retroperitoneal or intra-abdominal abscesses, associated with another cause that facilitates its development, for example Crohn's disease. At the beginning of the last century

Mycobacterium tuberculosis was the cause responsible for most cases of psoas abscess. As the TB pathogen was brought under control, secondary abscesses became more common. [4] Currently, the most frequent cause of primary abscesses is Staphylococcus aureus in 88.4%, followed by streptococcus and Escherichia coli [5.6]. Crohn's disease is the most common cause of secondary abscesses. Abdominal tuberculosis is rare and is usually found in patients with severe disseminated disease [7]. Tuberculosis more frequently affects immunocompromised patients, such as HIV-infected subjects or patients with diabetes mellitus and end-stage renal disease. [8] Our country is considered an endemic area, so reactivation of a latent infection should be considered possible, even in an immunocompetent subject. In our patient, the retroperitoneal localization of tuberculosis was associated with cervical lymph node localization. There is no associated pulmonary or vertebral involvement. Immunosuppression was ruled out by negative routine blood tests, normal immunoglobulin levels, and negative HIV tests. No other bacterial infection was found in blood culture and the Percutaneous aspiration of fluid was insufficient for mycobacteriological examination. Ultrasound is a widely available method and therefore usually the primary method for detecting an abscess, but computed tomography (CT) of the abdomen remains the gold standard in the diagnosis and follow-up of retroperitoneal abscesses. [9] The diagnostic sensitivity of ultrasound for retroperitoneal abscesses is 67% to 87%, while that of CT is 90% to 100%. Tuberculosis can be detected by chest X-ray (33%) and abdominal computed tomography (88%), which are the most frequently used imaging modalities, but there were no pathogenetic criteria. [10,11]. Thus, there are no techniques for specific imaging for retroperitoneal abscesses secondary to tuberculosis infection. In our context, the chest X-ray was normal and it was the CT scan that revealed the presence of an abscess of the left psoas muscle. Treatment of retroperitoneal abscesses can be conservative with antibiotic therapy, interventional with percutaneous drainage of the abscess, and surgical with evacuation of the abscess. In many case series analyses, interventional radiation therapy with antibiotics was the recommended treatment modality. However, no randomized clinical trials have been reported on the treatment of retroperitoneal abscesses. Ultrasound-guided drainage is the most common interventional treatment. Surgery was the main treatment method along with antibiotic treatment in Huang et al. [12, 13] Drainage by puncture can be technically difficult in some patients due to the location of the abscess or its multilocular appearance. Surgery is reserved if percutaneous drainage fails [14]. The preferred surgical drainage is usually extraperitoneally, as we did in this case. However, patients with secondary abscesses require correction of the underlying pathology, in addition to adequate drainage. In a few reported cases of retroperitoneal abscess with tuberculosis infection, the diagnosis was usually confirmed by surgery. [15, 16]. L' pathological study of the surgical specimens revealed a granuloma and giant cells with necrotic tissue. The culture of the samples was positive. A positive culture can be found when the histological examination is negative. [17] Our patient underwent ultrasound-guided drainage, which was insufficient, hence the need to supplement with extraperitoneal surgical drainage, the anapath of the surgical specimens of which was suggestive of tuberculosis infection by the presence of granulomas with caseous necrosis. The microbiological culture was positive for Mycobacterium tuberculosis. Standard four-drug anti-tuberculosis therapy is the mainstay of management of abdominal tuberculosis for at least 6 months [10]. Our patient received anti-tuberculosis treatment for 6 months,

Conclusion:-

Tuberculous psoas abscess is a pathology that mainly affects immunocompromised patients. On the other hand, the tuberculous etiology of a retroperitoneal abscess should be kept in mind in an immunocompetent patient if he comes from endemic areas. Management is essentially based on drainage of the abscess, if possible by puncture under radiological control, if not surgical drainage remains the definitive treatment in association with antituberculosis therapy.

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