

A Painful Hip Revealing a Rare Infection of the Soft Parts

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Abstract

Case Report

Multifocal pyomyositis is a rare infection of the striated muscles described for the first time by Scriba in 1885. We report the case of 53 years old diabetic woman, who presented with multifocal pyomyositis two months after a phlegmon of the left foot. MRI of the left hip showed multiple pelvic collections around the coxo-femoral joint. The patient was successfully treated with antibiotics but developed later a left coxo-femoral ankylosis. Multifocal pyomyositis is rarely reported in immunocompetent patients. The diagnosis is not always easy; it should be kept in mind in patients with muscle ache and fever. The evolution of this disease is often favorable if treatment is started early.

Keywords: Abscess; infection; muscle; multifocal pyomyositis.

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INTRODUCTION

Pyomyositis is a suppurative infection of skeletal muscle. This disease is often misdiagnosed due to non-specific symptoms and signs, clinical dilemmas due to diverse differential diagnosis and absence of clear-cut guidelines. We report a case of multifocal pyomyositis in a 53-year-old diabetic woman with septic arthritis of the hip.

CASE PRESENTATION

We report the case of 53 years old woman, with a history of diabetes for 8 years treated by oral hypoglycemic agents. She has been successfully treated for cervix cancer two years and a half ago with surgery, chemotherapy and radiotherapy. The symptoms onset was two months ago, the patient declared a phlegmon of the right leg treated successfully by penicillin M for 4 weeks. During the treatment, she presented a swelling of her left arm and left coxodynia which was treated initially as sciatica. There was no history of trauma or viral illness preceding the onset of complaints. There was no history suggestive of tuberculosis.

Clinically, the patient was feverish with a temperature of 38,8°C, a blood pressure of 130/60, her pulse was 72 beats per minute. We found a painful and warm swelling next to the left great trochanter and the left tricipital area. The mobilization of the left hip was painful and limited. The patient couldn't work. The

controlateral limb was normal. The rest of the clinical examination was unremarkable.

The investigations revealed inflammatory anemia with hemoglobin to 7, 5 g/dl, thrombocytosis to 787000/mm, total leucocytes count of 14000/cumm, erythrocyte sedimentation rate 141mm/1st, and protein C-Reactive of 88, 64 mg/l. The hemocultures remained sterile. The testing for liver and kidney function were both normal. Human immunodeficiency virus screening was negative. Sputum microscopy and culture were negative for tuberculosis.

The x-ray radiography of the pelvis and left hip showed global pinch of coxo-femoral joint. A pelvic CT and MRI of the left hip showed multiple pelvic collections around the coxo-femoral joint extending towards the gluteus area and the iliopsoas. Moreover, it confirmed the arthritis of the left hip with iliac Lymphadenopathy (Figure 1). Furthermore, needle aspiration of the abscesses next to greater trochanter and left arm revealed some neutrophils, the pus culture was sterile.

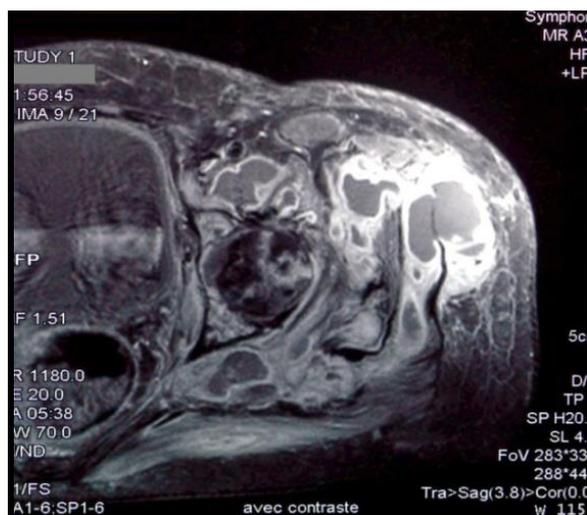


Fig-1: MRI in T1 sequence showing multiple abscesses around the left coxo-femoral joint with hip arthritis. Joint with arthritis of the hip

The patient was diagnosed with multifocal pyomyositis associated to septic arthritis of the left hip. She received 9 g of penicillin M per day and 400 mg per day of ciprofloxacin.

On the 3rd day of treatment, the patient had a low grade fever and the pain decreased. Control CT-scan a week later, showed significant decrease of the abscesses and a left coxo-femoral ankylosis. The patient received 10 days of intravenous antibiotics followed by oral ones for 3 months. Eventually, a total hip arthroplasty could be proposed.

DISCUSSION

Multifocal pyomyositis was described for the first time by Scriba in 1885 [1]. It is endemic in tropical countries where tropical pyomyositis nomination. The disease is seen in all age groups, although young males are most susceptible. Maximum incidence is seen at 10-40 years of age with a male to female ratio of 1,5/1 [2].

Literature over last few decades has revealed an increasing number of cases of pyomyositis in immunocompromised adults or associated with chronic disease reported from temperate regions [3-9]. Traditionally believed to be a disease prevalent in tropical regions and usually affecting young children, it is now seen to affect immunocompromised hosts or those suffering from chronic ailments in temperate countries too.

The pathogenesis of pyomyositis is not clear especially as skeletal muscles are usually very resistant to microbial invasion. Some factors are suspected: excessive muscle exercise, diabetes, hemopathies and HIV infection, chronic renal failure and other chronic debilitating disorders [10]. In our case, diabetes and the history of cervical cancer treated by chemotherapy are considered factors known to be driving the occurrence of this infection.

The diagnosis of multifocal pyomyositis is not always easy. The onset of the disease is marked by diffuse muscle aches and fever, which is often set insidiously, leading to diagnostic delays as in our patient. These symptoms are typical off 2-3 weeks-long pre suppurative stage. The suppurative stage is characterized by the formation of abscess muscle followed by a stage of complication with a risk of septic shock and death [11].

The muscles most frequently affected are: the quadriceps (26.3%), the iliopsoas (14%), muscle glutei (10.8%) and deltoid (7.9%) [12].

Blood culture is positive in 5– 30 % of cases, which remained negative in our case. Up to 75 % of culture positivity is reported for *Staphylococcus*. *Streptococcus*, *pneumococcus*, *neisseria*, *haemophilus*, *pseudomonas*, *klebsiella*, *Escherichia*, *salmonella* and *mycobacterium* are also rarely isolated [10]. In our patient the culture was probably decapitated by taking the antibiotics.

Ultrasound is a simple noninvasive tool for establishing pyomyositis and guiding percutaneous needle drainage in cases with visible swelling. But MRI is the modality of choice for the diagnosis of multifocal pyomyositis, as it clearly defines the anatomic extent of the infection and differentiates between the early stage of diffuse muscle inflammation and oedema and the subsequent stage of abscess formation. Gallium scintigraphy is an extremely sensitive modality for difficult or obscure cases.

The management is aggressive with specific parenteral probabilistic antibiotics covering *staphylococcus* or other organisms depending on the culture reports along with needle aspiration or open surgical drainage if required. Treatment should be continued till wound is clean and the infection markers decrease [10].

The evolution of multifocal pyomyositis is often favorable if treatment is started early. In case of delayed diagnosis as it is for our patient, the risk is the extension to other sites especially heart, lung and joints. However, upon literature review, only few cases of multifocal pyomyositis associated to septic arthritis have also been reported [13, 14].

Multifocal pyomyositis is a rare, enigmatic and evolving ailment. Despite evaluating factors in all published case reports, we could not arrive at specific conclusions on factors predisposing to this disease. The variability and rarity of cases, along with changing patient and bacteriologic profile, also needs to be re-evaluated.

CONCLUSION

The diagnosis of multifocal pyomyositis should be kept in mind in patients presenting clinically with muscle ache and fever, even in immunocompetents especially with chronic debilitating disorders. An accurate and early diagnosis of the disease leads to proper management and favorable outcome.

Consent

Written consent was obtained from the patient for publication.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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