CASE REPORT

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Tropical Pyomyositis Presented as False Positive Brucellosis with Right Sacroiliitis Joint Pain: A Case Report

ABSTRACT

Aim: Tropical Pyomyositis presented as false positive brucellosis with right sacroiliitis joint pain

Background: Pyomyositis, also known as "tropical pyomyositis" Myositis purulent atropica. In 90% cases the causative agent is Staphylococcus aureus

Case Description: A young male presented with multiple skeletal muscle abscess with left sacroiliitis joint pain. Patient also showed false positive brucellosis antibody test with negative slide agglutination test.

Conclusion: CT scan guided aspiration of pus inside the pelvic region as well as Laparoscopic drainage of pus with debridement showed Staphylococcus Aureus. Patient responded with debridement along with prolong antibiotic course.

Clinical Significance: Pyomyositis is a poorly understood condition . The initial signs and symptoms are nonspecific and misleading and making it often underdiagnosed

Key words: Staphylococcus aureus, abscess, biopsy, aspiration, MRI

INTRODUCTION

Pyomyositis usually is seen in all age groups mostly targeting children of (2–5 years) and young adults (20–45 years). It has a Male: Female ratio of 1.5:1.[1] Pyomyositis, also known as "tropical pyomyositis" Myositis purulent atropica , Pyogenic myositis or Suppurative myositis which is an acute inflammation. Its hallmark feature infiltrates which are found to be rich in neutrophils. In 90% cases the causative agent is Staphylococcus aureus. Other causes include Streptococcus pyogenes, Salmonella, Escherichia coli, and pneumococci.[2]

There are three phases. The first being the invasive phase, which lasts for 10-21 days which is characterized by fever, anorexia, and diffuse and disabling muscle pain. The second phase is the purulent or suppurative phase, involving more intense pain; in this phase, intramuscular pus collection develops, the affected muscle becomes painful on palpation, and the surrounding skin may be erythematous. The final phase is due to extension of the infection to the adjacent bone surface, with accompanying osteomyelitis or even progression to septic shock. Mortality rate is significant and is estimated to be around 10%.[3]

CASE REPORT

A 28-year-old male presented with high fever with chills in the last 7 days along with history of pain in the left gluteal region at the sacroiliac (SI) joint. Patient also had boil in the right gluteal region which ruptured out pus with minimal blood. No H/O cough, breathlessness, chest pain or abdominal pain. No H/O dysuria or urinary symptoms. No H/O recent travel or eating outside food. No H/O Co-morbidity. On examination, patient was febrile, pulse was 110/ min, blood pressure 110/70 with respiratory rate 28/min. There was no swelling over left gluteal region and Sacro-iliac joint was normal but patient was having pain while walking. Right gluteal region revealed small boil which was ruptured with minimum induration. Other systemic examination was normal. General Surgeon opinion regarding boil taken and De-sloughing and debridement done along with pus for culture sent. Orthopedic opinion in view of SI joint pain taken which he declared nil bone or joint involvement. Routine blood investigations are as follow: Hb: 13.8, WBC: 11690, platelet : 540 k , SGOT: 145 , SGPT: 138 GGTP: 161 , Create: 0.98 , CRP : 337, PCT: 1.57 , SE. ELECTROLYTES were normal , ECG and X-ray Chest were normal, Triple H negative, Ig M brucellosis : 4.8 U/ml (positive >12 0) IgG brucellosis : 34 U/ml (positive > 18) but Slide agglutination Test: < 1:80 (Negative). Urine routine was normal. Blood culture was sterile.

Nitin Rathod[1], Andrea Janice Fonseca[2], Aayush Jayswal[3], Ashwini Jogade[4]

[1]Head of Department of Medicine, [2]Clinical Associate, [2,3]Department of Medicine, [4]Medical Superintendent. Nanavati Max Superspeciality Hospital, S.V road, Vile Parle, Mumbai,India

Corresponding Author:

Nitin Rathod, Head of Department of Medicine
Nanavati Max Superspeciality Hospital, S.V road, Vile Parle, Mumbai, Maharashtra, India

E mail: drnmrathod@hotmail.com

In view of severe pain in left gluteal region, MRI of pelvis done which revealed small loculated collection /abscess in the left ilio-psoas (Figure 1) and pyriformis muscles (Figure 2) with mild adjoining soft tissue edema. In addition, MRI shows right gluteal abscess (Figure 3) Edema is also seen in the posterior Para spinal muscles along the left sacro-iliac joint and in the left gluteus maximus muscle.

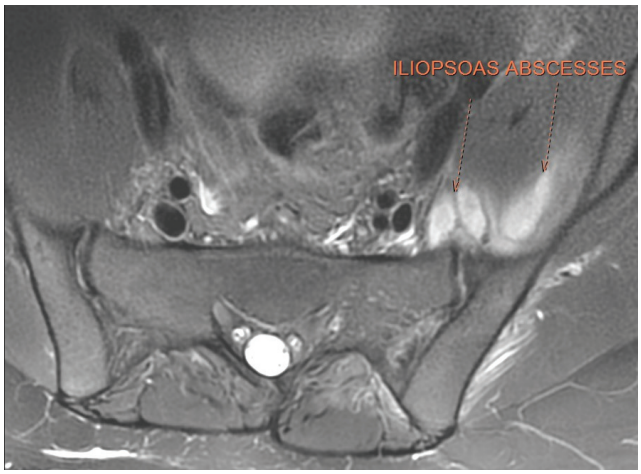

Figure 1: Small loculated collection /abscess in the left ilio-psoas

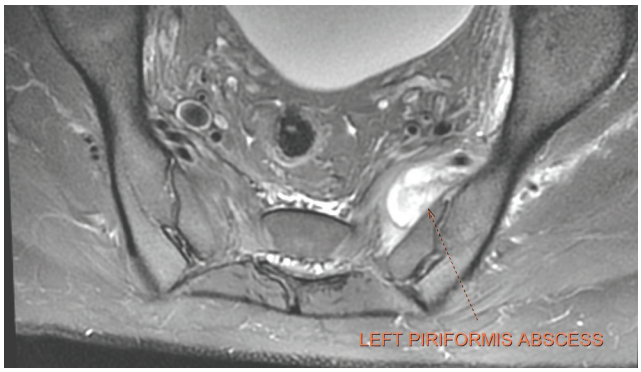

Figure 2: Pyriformis muscles with mild adjoining soft tissue edema

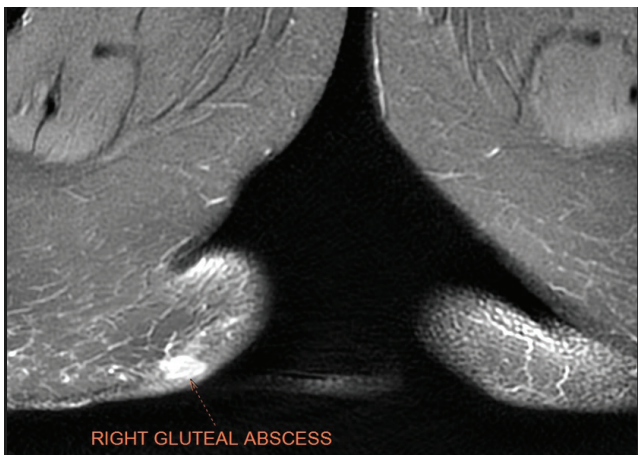

Figure 3: MRI shows right gluteal abscess

Pus from right gluteal boil revealed staph aureus (MRSA) sensitive to Vancomycin/Teicoplanin/ Clindamycin/ Daptomycin / Tigecycline. Smear for AFB and Gene Xpert for mycobacterium negative. No fungal growth. USG guided aspiration was not possible. Hence CT guided aspiration attempted but only few drops of exudate along with blood stain aspirated and sent for culture. It also revealed Staph. Aureus (MRSA) with same sensitivity like right gluteal pus. Since pain and fever was not responding to antibiotics viz. Vancomycin and Clindamycin, it was decided to explore with laparoscopic drainage and Incision and Drainage of perianal region. Laparoscopic deep dissection up to iliacus muscle done revealed small amount of pus (1 to 2 ml) with pus flakes. Debridement with drainage done with closure. Laparoscopic pus collection also revealed Staph. Aureus (MRSA) with same sensitivity as CT guided aspiration.

Inj. Vancomycin and Inj. Clindamycin continued and patient's fever subsided and pain reduced to minimum, CRP and PCT reduced to 76 from 337 and 0.13 from 1.57 respectively. Patient recovered without any complications. Patient was vitally and hemodynamically stable and hence at the end of 12 days, patient discharged with 10 more days of antibiotics coverage.

DISCUSSION

Tropical pyomyositis, is mainly seen in tropical countries. Suppuration within the skeletal muscles is the main characteristic feature. It manifests as a one or more abscesses. Due to an inadequate functioning of T lymphocyte there is an entry of bacteria in the muscles.[4] The most common causative agent is Staphylococcus aureus. A history of trauma is seen in 20-50% cases.[5] The quadriceps, glutei, pectoralis major, serratus anterior, biceps, iliopsoas, gastrocnemius, abdominal and spinal muscles are commonly involved. Prompt diagnosis is missed due to lack of specific signs, unfamiliarity with the disease, unusual manifestations, and a wide range of differential diagnosis. Ultrasound and computed tomography/ magnetic resonance imaging play a huge role in diagnosis. The diagnosis is confirmed either by biopsy or aspiration of pus from the affected muscles. Surgical debridement and drainage, accompanied by parenteral (MRSA) antibiotics are drug of choice. Vancomycin is the drug of choice. Alternatively, Teicoplanin, Tigecycline, Linezolid and Clindamycin can also be given in case of MRSA infection.[6] Complications of pyomyositis include muscle scarring, residual weakness, osteomyelitis, septic arthritis, pericarditis and septic shock among others and with appropriate therapy patient usually recovers without sequalae.[7]

CONCLUSION

Pyomyositis is a poorly understood condition and it may be fatal if not diagnosed early. The initial signs and symptoms are nonspecific and misleading and making it often underdiagnosed. In our case, it was presenting like sacroiliitis and false positive brucellosis antibodies but slide agglutination were negative. With the advance in diagnostic imaging like MRI and CT scan guided biopsy coupled with laparoscopic approach to the site of abscess make the prognosis better. The prognosis remains excellent if the disease is promptly identified and treated correctly.[8] Despite the dramatic clinical deterioration of our patient made a complete recovery without and complications

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