

## Symphysis Pubis Septic Arthritis

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### Keywords:

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### 1. Abstract

Septic arthritis of symphysis pubis is a rare disease, also known as osteomyelitis of pubic symphysis. It represents less than one percent of all the cases of osteomyelitis. The symptoms are deceiving and can mimic many conditions. This condition usually involves young athletes and women who are undergoing gynecological and urological surgery. This is a case of 65-year-old female known case of Diabetes mellitus and Ischemic heart disease, she presented with a one month history of fever, pubic pain which irradiates to the genitals and left hip joint and increases when hip is mobilized, and this produces gait claudicating. Workup was done which showed symphysis pubic arthritis. This case was managed conservatively and by ultrasound drainage of the abscess.

### 2. Background

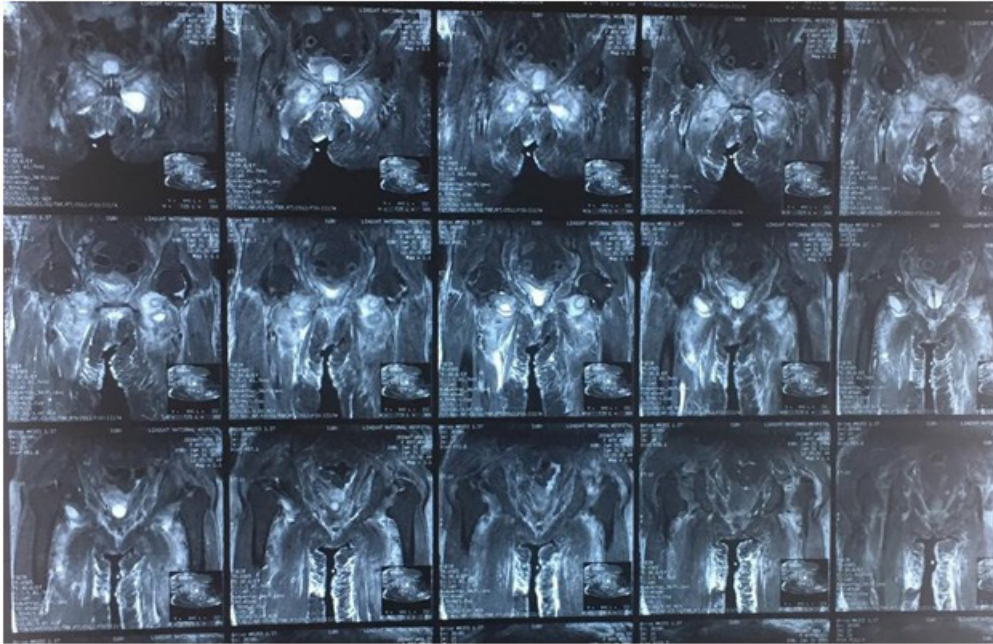
Septic arthritis of symphysis pubis is a rare disease, also known as osteomyelitis of pubic symphysis. It represents less than one percent of all the cases of osteomyelitis [1]. The symptoms are deceiving and can mimic many conditions. This condition usually involves young athletes and women who are undergoing gynecological and urological surgery [2, 3]. Signs and symptoms consist of hip and pubic joint pain and fever. Most common organism isolated is Staphylococcus aureus [3]. It needs clinical, microbiological and radiological correlation to diagnose the condition. Treatment usually consists of antibiotics, NSAIDS, immobilization and drainage of abscess.

### 3. Case Presentation

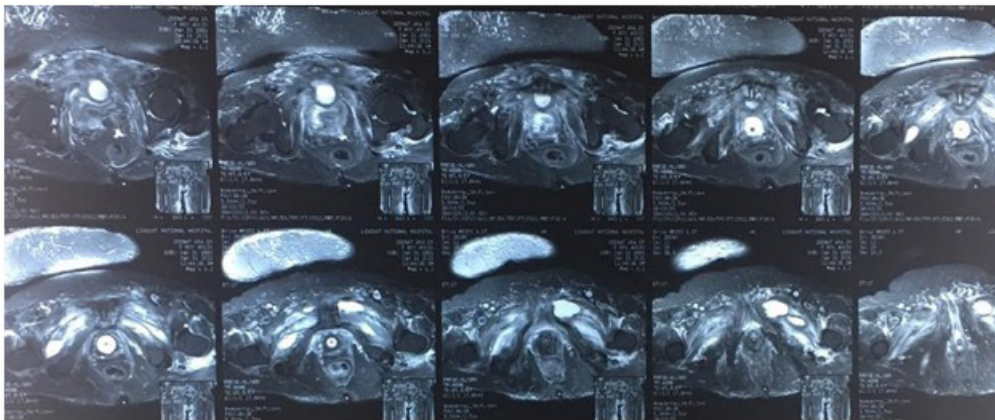
A 65-year-old female known case of Diabetes mellitus and Isch-

emic heart disease, she had previous history of angioplasty 2 years back, she presented with a one month history of fever, pubic pain which irradiates to the genitals and left hip joint and increases when hip is mobilized, and this produces gait claudicating. The symptoms started suddenly and the patient denied any history of trauma. She has previous history of multiple thigh and breast abscess, however no previous records available. The C reactive protein had risen to 3 mg/l with an erythrocyte sedimentation rate of 25 mm/h and a white blood cell of 8.0 per mm<sup>3</sup>. Echocardiogram was normal and autoimmune screen was negative. The blood culture was negative. The magnetic resonance imagery (MRI) of the pelvis showed multiple high signals area on T2 and T2 STIR images involving bilateral inferior and superior pubic rami extending upto pubic symphysis and posteriorly in anterior wall of right acetabulum. T2 STIR images also showed involvement of bilateral pectineus obturator internus and externus muscles also involving both ischiofemoral spaces, quadrates femorus, adductor brevis and magnus and left gluteus maximus muscles. Multiple pockets of collections were noted in obturator externus and pectenious muscles. Largest one is in left groin measuring up to 4.8\*3.1 cm with surrounding edema as shown in figure 1 and 2. Findings are most likely due to septic arthritis if pubic symphysis.

The ultrasound guided drainage was done. Aerobic and An-aerobic cultures were negative and MTB gene expert was also negative. The patient was prescribed intravenous antibiotics Vancomycin and Meropenem managed conservatively with pain killers, antibiotics and immobilization.



**Figure 1:** Coronal cuts of T2 STIR images showing pelvis area and medial compartment of thighs. Note the hyperintense area representing the abscess involving the muscles of medial compartment of thigh.



**Figure 2:** MRI T2 weighted images axial cuts of pelvis and thigh area showing pockets of abscess of muscles of medial compartments of both thighs. Largest one in left groin measuring 4.8 \* 3.1 cm.

#### 4. Discussion

The infection of this joint is usually occurs in the peoples with repeated hip adduction and twisting like in footballers [2,3]. The symptoms include fever, weakness, malaise, hip joint pain, and tenderness of pubic bone, pain on walking, lower abdominal pain and difficulty in micturition [2]. Pain is usually unbearable especially on load bearing. Septic arthritis of pubic joint is even a rarer diagnosis than osteitis pubis [4, 5]. Most common isolated organism is *Staphylococcus aureus* [3] however in some patients no organism was isolated. For radiological diagnosis Magnetic resonance imaging is the most superior and reliable investigation [3]. MRI has the ability to pick the changes early however CT scan and X-ray are less sensitive to early radiographical changes. In some cases this infection extends to retro pubic space and form retro pubic abscess that presents as swelling in lower abdomen [6, 7]. Ideal treatment is antibiotics, immobilization and abscess

drainage [3], but in our patient due to poor medical condition and conservative approach was chosen and Ultrasound guided drain was placed for abscess drainage. Early recognition and high index of suspicion are required to prevent the disease [8].

#### 5. Conclusion

Septic arthritis of symphysis pubis is a rare disease. It represents less than one percent of all the cases of osteomyelitis. The symptoms may be devastating and may require urgent medical attention.

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