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Presacral Cold Abscess a Rare and Special Case of Skeletal Tuberculosis

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Abstract- Skeletal Tuberculosis is a not that common nowadays due to effective antitubercular chemotherapy available along with the fact that most cases of primary tuberculosis are diagnosed quite ealy. Furthermore Presacral tubercular abscesses are a rare entity. Lumbosacral region is the least effected. We report a case of a patient with presacral abscess in a patient without any source of tuberculosis elsewhere. We present a rare case of large presacral abscess simulating a big tumor and MRI Done showed a large presacral abscess. It was managed by drainage through a trans pedicular route.

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Presacral Cold Abscess a Rare and Special Case of Skeletal Tuberculosis

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Abstract- Skeletal Tuberculosis is a not that common nowadays due to effective antitubercular chemotherapy available along with the fact that most cases of primary tuberculosis are diagnosed quite early. Furthermore Presacral tubercular abscesses are a rare entity. Lumbosacral region is the least effected. We report a case of a patient with presacral abscess in a patient without any source of tuberculosis elsewhere. We present a rare case of large presacral abscess simulating a big tumor and MRI Done showed a large presacral abscess. It was managed by drainage through a trans pedicular route.

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I. INTRODUCTION

The known fact that the incidence of tuberculosis had decreased significantly due to significant development of effective ant tubercular therapy coupled with the fact that tuberculosis is diagnosed at earlier stages have contributed to the reduction of pulmonary tuberculosis. However In recent years, there has been an increase in the incidence of tuberculosis associated with HIV infections.

Tuberculosis is one disease which can effect virtually any body system. When bones are effected in case of Skeletal tuberculosis, it is invariably as a result of hematogenous seeding of tubercle bacilli from a pre-existing lung lesion or gastrointestinal focus. The tubercle bacilli frequently infect the joints and intervertebral discs initially followed by the infection of the long bones. It has been seen that the intervertebral discs of the lower thoracic and upper lumbar spine account for 25- 30% of all cases of skeletal tuberculosis. The present article describes the clinical rarity associated with tuberculosis which presented like a tumor mass in the patient. On further evaluation of the mass it was found to be tubercular in origin.

II. TEXT

The patient had hip pain as well as lower back for last six months with slight painful movements of the

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hips. There was no past history of tuberculosis or immunosuppression.

- Laboratory examination revealed a elevated white cell count, an elevated erythrocyte sedimentation rate.
- The tuberculin skin test was positive.
- The white cell count was elevated, with an increased number of mononuclear cells.
- Lab Investigations of Patient
 - Temp: 98.70F
 - BP: 126/78
 - RR: 12/Min
 - Pulse 82 bpm
 - HB: 13.7 gm/dl
 - WBC : 11,200 / microlitre
 - Platelets : 2,30,000/microlitre (n 150000-400,000)
 - Sodium: 144meq/L (n 135-145)
 - Potassium : 4 meq/L(n 3.5-5)
 - ESR Significantly raised : 56
 - CXR: Normal
 - USG Abdomen: Normal
 - CT scan /MRI Pelvis: Large Presacral mass

III. DISCUSSION

Presacral tubercular abscesses are a rare entity.¹ Buyukbebeci reported one case of presacral abscess.² Following hematogenous inoculation, tubercle bacilli can lodge at multiple sites in the subchondral bone of the epiphysis, in the joint capsule, or in the synovial membrane. The initial host response is an infiltration of lymphocytes, plasma cells, and histocytes. The multifocality of tuberculosis is a well established fact.³ However the present patient had no evidence of Pulmonary Tuberculosis as evidenced by a normal chest radiograph and sputum culture.

IV. PATHOLOGY

The histologic appearance of the tuberculous lesion in bone resembles that observed in visceral tuberculosis.⁴ Histiocytes, Langhans giant cells, and fibroblastic proliferation⁵ are all present. Caseous necrosis is less frequently seen in joint lesions than in pulmonary lesions.⁶ Within the joint, invasion of bone tends to occur at the margins where synovium is attached to bone, producing a characteristic marginal defect.⁷ The weight-bearing areas of the joint tend to be spared in the early phase of the disease, and there is



preservation of joint width on early radiographs. As destruction proceeds, the joint becomes filled with necrotic products and fragments of articular cartilage, material called rice bodies because of its resemblance to grains of rice. In some instances, joint or disc space infection burrows into adjacent soft tissues, extends along fascial planes, and may eventually penetrate the skin, producing a draining sinus tract.

The destruction of bone and articular cartilage by tuberculous infection is a slow process, and symptoms are correspondingly insidious in their development. The patient usually complains of a dull ache in the area of the affected joint. A history of weight loss and easy fatigability may be obtained. There may be a history of close contact with a family member or friend with known tuberculosis.

Spinal involvement with tuberculosis produces diminished motion at the thoracolumbar level.⁸ Protective paraspinal muscle spasm holds the back hyperextended.⁹ If the tuberculous process has escaped the confines of the disc space and adjacent vertebrae¹⁰, a large paraspinal abscess may result. As the spine becomes weakened, collapse of the vertebral column may occur, forcing caseous necrotic debris into the spinal canal and producing neurologic symptoms ranging from paresis to complete paraplegia. The paraspinal abscess developing around a focus of tuberculous infection may extend some distance beneath the paraspinal muscle and present as a mass above the posterosuperior iliac crest, or it may extend down the psoas muscle and present as a mass in the medial thigh. On incision, these masses produce caseous necrotic material but characteristically do not have any associated erythema or increased heat. This clinical presentation is known as a cold abscess. The first radiographic change in tuberculous spondylitis is narrowing of the disc at the affected level. The outlines of the adjacent vertebral end plates become indistinct in appearance. As the disease progresses, the combination of interspace narrowing and vertebral collapse may produce a kyphotic deformity. If a paraspinal abscess is present, it usually produces a soft tissue shadow on plain radiographs. Calcification is occasionally observed within the abscess. The patient had ignored the symptoms for a long period of time and ultimately presented at a late stage when the tubercular disease had progressed and a big abscess had already been formed.

Radiographs of tuberculous joints demonstrate generalized osteoporosis, with preservation of the joint width and distention of the joint capsule. The earliest bony changes consist of erosion of the joint margins at the point of synovial attachment to bone. Similar defects may occur within the epiphysis, and infection may cross the epiphyseal plate into the adjacent metaphysis. When the hip joint in children is involved, progressive capsular distention may interrupt the blood supply to the capital

femoral epiphysis. This patient had already developed a large abscess in front of the sacrum. MRI/CT Scan diagnosed the same. After diagnosis, the patient was surgically managed and the abscess was managed by drainage through a trans pedicular route. Six months after the treatment patient was followed up and had absolute recovery.

V. CONCLUSION

Tuberculosis can effect any site in the body and its manifestations as regards skeletal tuberculosis can also be varied. Early recognition of tubercular abscesses and drainage is of utmost importance. Late presentation can lead to complications and increase in morbidity. Presacral region is a difficult region for drainage and an anterior approach is the most preferred.

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Fig. 1: CT Scan demonstrating Presacral abscess depicted by arrow



Fig. 2: MRI Scan demonstrating Presacral abscess denoted by arrow





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