Kathmandu University Medical Journal (2007), Vol. 5, No. 1, Issue 17, 112-113

Case Note

Polyarticular tuberculosis in a young boy: A rare presentation

Bajracharya S, Nepal P, Singh MP, Singh GK
Department of Orthopaedics, B P Koirala Institute of Health Sciences Dharan Nepal

Abstract
Polyarticular tuberculosis involving bilateral hip and bilateral knee joints without obvious pulmonary or disseminated form of tuberculosis in a young boy is presented along with literature review.

Skeletal tuberculosis accounts for 1-5% of all tuberculosis infections. Of these infections, 15% involve the hip and only 10% involve the knee joint, presented as single joint involvement. Skeletal tuberculosis is localised to a single site in 90-95% of reported cases. Multifocal involvement is uncommon [1,2] and is usually associated with disseminated disease. We present a case of polyarticular tuberculosis involving multiple joints without obvious pulmonary or disseminated form of tuberculosis.

Case report

A 10 years old boy from remote Hilly village, Chane check-1, Taplejung of Eastern Nepal, was presented to Emergency Room of B P Koirala Institute of Health Sciences Dharan Nepal with complains of off and on evening rise temperature with loss of weight and loss of appetite followed by insidious onset pain and swelling on left hip, right hip, right knee and then left knee simultaneously for last two and half months duration. Patient remained bed ridden for 3 weeks. On Examination, patient was cachexic with poor general condition and anaemic; with bilateral inguinal lymphadenopathy (multiple, tender matted lymph nodes). On local examination, there were obvious swelling and tenderness on both hip and knee joints with features of subluxation in right hip. On radiographs, there were subluxation of right hip joint, pathological neck of fracture in left femur, radiolucent lesion in the left knee and soft tissue swelling in the right knee (Fig1 2). On laboratory examination, patient had haemoglobin 6.3 gm/dl, TLC 15,500 with predominant lymphocyte and ESR 69 mm in 1st hour with hypoproteinemia (Albumin 2.3 gm/dl). Radiographs of Chest showed no pulmonary lesion and Ultrasonography ruled out involvement of visceral organs. For histopathological confirmation, core biopsy was taken from left trochanteric region showed feature suggestive of tuberculosis. With this, diagnosis of Polyarticular tuberculosis involving bilateral hips and knees was made. Four drugs Antitubercular regimen (Rifampicin, Isoniazid, Pyrazinamide, Ethambutol with pyridoxime according to body after Liver function tests) was started. The patient was given bilateral skeletal traction for immobilization and reduction of subluxation of hip joint. After 3 weeks of traction, reduction was achieved (Fig 3) with improvement of general condition of patient and range of movement of both hip and knee joints. To maintain the reduction, bilateral full hip spica was applied for 3 months (Fig 4). After 3 months, Hip spica was removed and non weight bearing mobilization of both hip and knee were done for next 3 months. After follow up of 9 months, patient had full range of movement and can bear weight without pain.

Correspondence
Dr. Suraj Bajracharya
Department of Orthopaedics
BP Koirala Institute of Health Sciences
Dharan, Nepal
Email: drsurajbajra@hotmail.com

Fig 1: Showing Bilateral hip involvement

Fig 2: Showing Bilateral knee involvement

Fig 3: Showing achieving reduction after traction

Fig 4: Showing Bilateral Full Hip Spica

Discussion

Osteoarticular tuberculosis is a quite uncommon form of extrapulmonary tuberculosis. Difficulties in diagnosis often lead to delayed treatment, sometimes with devastating consequences for patients. We report herein a case of multifocal osteoarticular tuberculosis of insidious onset with no history of prior health problems or constitutional signs and symptoms. Despite widespread osteoarticular involvement, the outcome of the patient was favourable after the management. Osteoarticular tuberculosis must be considered in patients with insidious musculoskeletal symptomatology.[3]

References

1. Kaya A, Topu Z, Fitoz S, Numanoglu N Pulmonary tuberculosis with multifocal skeletal involvement**.** Monaldi Arch Chest Dis. 2004 Apr-Jun;61(2):133-5.
2. Shah BA, Splain S. Multifocal osteoarticular tuberculosis. Orthopedics. 2005 Mar;28(3):329-32.
3. Keles I, Aydin G, Kendi TK, Orkun S. Multifocal osteoarticular tuberculosis: a case report Rheumatol Int. 2005 May; 25(4):307-10. Epub 2004 Sep 18.