

Case report

Multiple Active Tuberculosis : A rare case

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Abstract

Tuberculosis is a peculiar infectious disease because of the latent period between the infection and the appearance of the disease which may be prolonged for many weeks, months or years as it is in case of the secondary tuberculosis. Extra pulmonary tuberculosis gained new importance, because it represented a progressively greater proportion of new cases. Multiple extra pulmonary sites were reported rarely except for one anatomical site, which was reported frequently. A 20 yrs old boy was admitted at Dhaka National Medical Institute Hospital with pain at back, buttock and thigh with a swelling at the anterior aspect of upper part of left thigh. He was diagnosed as a case of tuberculosis of spine (D12 and L1) with psoas abscess with tuberculosis of hip joint (It) and an enquiry and investigation found to have pulmonary TB as well. So this rare involvement of multiple tuberculosis is presented here.

key wards : extra pulmonary, psoas abscess, Gibbus.

Introduction :

Tuberculosis is a major health problem in developing countries like Bangladesh. Spinal Tuberculosis is common and dangerous form of Tuberculosis infection.

In 1993 WHO declared tuberculosis as global emergency in developing country. More than 15% of population is affected by tuberculosis and about 3 millions of world population are killed every year by tuberculosis of both pulmonary and extra-pulmonary.¹ Bangladesh is a highly densely populated area. Majority are illiterate, lacking knowledge about nutrition, good hygienic condition and health problem.

In Bangladesh over 3,00,000 peoples develop tuberculosis each year both pulmonary and extra pulmonary tuberculosis. of them 70,000 die without treatment or due to complication like bronchiectasis, haemoptysis or tubercular meningitis.² Although most of the patient are treated by conservative means. Some need proper surgical intervention to prevent or treated neurological deficit.

High risk group for tuberculosis are under 5 children, elderly folks and drug addicts. These patients develop atypical tuberculosis affecting posterior aspect of vertebrae. These are rare in Bangladesh.

Spinal Tuberculosis usually results from an extra spinal source of infection, its onset is insidious & destruction may continue for many years until a diagnosis can be made. Bony destruction initially leads to anterior wedging of the vertebral bodies that may eventually collapse as the disease progresses. As the Vertebral bodies collapse anteriorly gibbus develop posteriorly, pain paralysis & long term disability may be result .□

Most of the patients present with low back pain (LBP), back pain (Dorsal TB), neck pain (Cervical TB) with progressive destructive feature of local deformity like gibbus, kyphosis with paraplegia & bowel and bladder disorder.

Dorsolumbar TB is the most common spinal TB in these regions leading to paraplegia and bedsores. Cervical TB lead to quadriplegia. Delayed diagnosis & management leads to spinal cord compression & spinal deformity. 95% of the spinal TB without paraplegia are cured by conservative treatment. Over 50% of complicated cases treated by decompression fusion and stabilization come out with good result.

Case note:

A 20 years old boy, Mr. Sajal hailing from Munshigonj, was admitted in Dhaka National Medical College & Hospital in the department of Orthopaedic Surgery on 01.03.2012 with the complaints of pain in the left buttock for one year, difficulty in walking for six months and swelling in the anterior aspect of left upper thigh for two months and also history of low grade fever, anorexia and weight loss. The pain had an insidious onset and dull aching in nature aggravated during night and on movement and relieved by keeping hip joint in relaxed position. After that pain was severe and continuous, but no history of radiation of pain, he could not walk without support. From the last 2 months he also noticed a swelling in the anterior aspect of left upper thigh.

On examination The Left hip joint was in flexed attitude, left lower limb appeared adducted and internally rotated and about two cm shorter than right lower limb. Left thigh musculature was wasted by 2 cm and left gluteal musculature also wasted. Painful restricted movement of left hip joint with fixed flexion deformity at 45 degree with further range of movement of 45 to 60 degree. Knee and ankle movements are normal.

The swelling was diffuse in shape, about 10×12cm in size, non tender, cystic in consistency and no engorged vein was visible. Fluctuation test was positive but transillumination - negative. He did not give any history of trauma or taking any steroid. There was a “Gibbus” in dorsolumbar spine at the level of D12vertebra. The muscle tone was found to be increased and, ankle jerks exaggerated. Ankle clonus present and planter response were extensor. No sensory deficit could be detected.

On investigation Hb was 10gm/dl, ESR = 82 mm in 1st hr, MT = 14 mm(+vc), X-ray L/S spine – decrease lumbar lordosis & there is generalized sclerotic lesion in D12 vertebra with wedging of L1 vertebra, diminished disc space between D12 and L1 & X-ray pelvis including both hip joint shows generalized osteoporotic lesion in left hip, osteolytic lesion on upper part of the acetabulum & irregular outline in head as well as in acetabulum, X-ray chest P/A view – showed area of mixed translucent and opacity in upper part of right chest..

Anti TB chemotherapy was started and observed for 3 wks. Improvement was achieved in respect of pain and stiffness, fever, anorexia etc. but psoas abscess did not diminish. So the psoas abscess was evacuated and the patient was kept on recumbency, for further one month. The psoas abscess did not have any communication with hip joint cavity. The patient was discharged after improvement when hip movement regained almost normal range. Follow up of the patient after 2 months of chemotherapy, satisfactory improvement was observed and the patient could move easily. The upper motor neuron signs were found to be diminished. The chemotherapy was changed to 2 drug regimen. At 6 month follow up, The patient was found to have almost normal life in respect of

squatting and spine movement. The general health was improved.



X-ray Dorsolumbar spine Lateral View

Discussion:

This case was reported in view of the rare presentation of tuberculosis which involved the lung, spine and hip simultaneously. The most frequent site for extra-pulmonary involvement of tuberculosis infection is vertebral column. The main reasons for global increase in tuberculosis are poverty, insufficient and inadequate health care. Globally there are more than 2 millions people with active spinal tuberculosis. Tuberculosis of spine is the most dangerous pattern of bone and joints tuberculosis because of its ability to cause bone destruction deformity and paraplegia.

Indication of surgery of spinal tuberculosis includes progressive neurological deficit, instability of spine, severe kyphotic deformity and intractable back pain. Regional distribution of tuberculous lesions in vertebral column Dorsal 42%, lumbar 26%, dorsolumbar and cervical 12%, cervicodorsal 05%, lumbosacral 03%. □ Spinal tuberculosis may present as kyphosis, cold abscess, perivertebral abscess, tuberculous sinus, neurological involvement, skipped lesion.

Spinal tuberculosis is most difficult to recognize radiologically in its early stages. There are mainly 4 sites where tuberculosis occurs in the vertebral column Paradiscal type, Central type (central part of the vertebral body), Anterior type (involving anterior surface of the vertebral body),

Appendicular type (involving pedicles, laminae, spinous process or transverse processes).

The tuberculosis of hip comes as the second position in preference of osteoarticular tuberculosis, The 1st one being TB spine. The occurrence of tuberculosis at three different site simultaneously is rare and thus the case is reported over here.



X-ray Pelvis Including Both Hip Joint A/P View



Follow up after 2 month.



X-Ray Chest P/A view.

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