

CASE REPORT

BILATERAL PROTRUSION OF FEMORAL HEAD INTO THE PELVIS IN NEGLECTED OSTEOMALACIA

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Osteomalacia is a metabolic bone disease in a mature individual, caused by lack of vitamin D or its active metabolites, on account of a number of factors. Osteomalacia is common in females and in countries with less sun shine. It typically presents with body aches, weakness, alongwith signs of bone tenderness and proximal myopathy. Diagnosis is made on the basis of clinical presentation and investigations; serum calcium, phosphorus, serum alkaline phosphates, 24 hour urine for calcium and phosphorus and skeletal radiology.

Key words: Osteomalacia; Bilateral; Pelvis; Femur

INTRODUCTION

Osteomalacia is a metabolic bone disease, occurring in mature individuals, caused by lack of vitamin D or its active metabolites. Causes of Vitamin D deficiency are:

- Inadequate dietary intake of calcium and vitamin D¹
- Inadequate exposure to sunlight²
- Malabsorption syndrome and renal diseases.

The disease is common in winter than in summer which reflects poor exposure to sunlight³ and therefore it is rare in countries where there is adequate sunlight⁴. Osteomalacia is common in females.

Osteomalacia presents with body aches, weakness, alongwith signs of bone tenderness and proximal myopathy. Pain and weakness in the hips may lead to waddling gait.

CASE REPORT

We present a rare presentation of neglected Osteomalacia.

A twenty five years old, female, married with four children, presented with history of inability to walk for the last one month and confined to bed. She has been suffering with body aches for the last two years and developed waddling gait one year ago. She was given symptomatic medical treatment with poor response.

On examination, a malnourished lady lying in the bed looking in discomfort and disappointment. She had thin extremities and bilateral hip stiffness and was unable to stand without support. Plain radiology of pelvis revealed bilateral protrusion of femoral heads into pelvis, which is a very rare finding (Fig 1).

Abdominal ultrasound was normal. Bone scan detected viable femoral heads. Blood biochemistry shows serum calcium level 7.8IU,

serum phosphorus 3IU and elevated serum alkaline phosphatase.

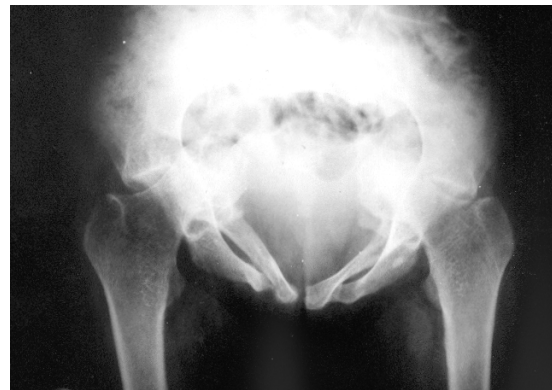


Figure 1. X-ray Pelvis showing protrusion of femoral heads into pelvis

DISCUSSION

Osteomalacia is a metabolic bone disease due to deficiency of vitamin D¹ or its active metabolites. In some countries, women use excessive clothing made up of layers and layers which may be a risk factor for osteomalacia⁴ and in these areas, there is minimal sun exposure as well increasing the risk of developing the condition².

Signs and symptoms of osteomalacia are; diffuse skeletal pains, bone tenderness and proximal myopathy. The typical waddling gate in osteomalacia is due to pain and weakness in the hip muscles. Bone deformities have also been reported in nutritional osteomalacia in a study from Israel⁵.

Diagnosis of osteomalacia is based on clinical, radiological and laboratory investigations. Radiological studies of spine, pelvis and tibia shows characteristic features of osteomalacia, i.e. codfish vertebra, trefoil pelvis and loss of zones in proximal femur and tibia. Abdominal ultrasound may be significant in renal osteodystrophy. Laboratory

investigations may reveal low or normal calcium and phosphorus and raised serum alkaline phosphatase levels.

This patient had a very rare hip bone pathology with protruded bilateral, viable femoral heads into the pelvis.

Although the best treatment modality for this patient is bilateral total hip replacement but due to non affordability on behalf of the patient, we have done girdstone on one hip and are planning for arthodesis on the other hip after three months time.

CONCLUSION

Awareness regarding the causes and presentation of osteomalacia and prevention of disabling deformities is very important. Health workers, medical students and doctors should be adequately educated about the disease and its possible complications with special

emphasis on the nutritional aspect and adequate sun light exposure.

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