

## Osteomalacia in A Young Lactating Mother Presenting As Bilateral Hip Pain: A Case Report



### Medical Science

KEYWORDS : Osteomalacia, vitamin D, back pain.

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### ABSTRACT

*Osteomalacia is a generalised condition characterised by softening of the bones caused by defective mineralisation of bone secondary to inadequate availability of calcium and phosphorus or due to increased resorption of calcium from bone secondary to hyperparathyroidism. It may manifest as diffuse body pains, muscle weakness and bony fragility. The most common cause is deficiency of vitamin D which is normally obtained from diet or from exposure to sunlight. Here we present a rare case of osteomalacia in 31 year old lady who was admitted with complaints of low back pain 20 days after she delivered a healthy baby. The radiographs of her hip and spine were normal and she was diagnosed to have osteomalacia by noting the reduced hydroxyl-vitamin D levels.*

### Introduction:

The term osteomalacia indicates soft bone, wherein, osteo means bone and malacia means softness[1]. Osteomalacia is characterised by inadequate mineralisation of bone[1]. It usually results from vitamin D deficiency, malabsorption or inadequate exposure to sunlight[2]. Uncommon causes include malnutrition in pregnancy, hypophosphatemia, chronic renal failure, tumour induced osteomalacia, long term usage of anticonvulsants ,renal tubular acidosis and multiple myeloma[3].

The condition has an insidious onset with pain in the lower lumbar region and thighs. The pain is symmetrical and associated with multiple bone and joint pains, later there may be weakness of muscles and pathological fractures. Radiological features are pseudofractures also known as Looser's zones and protrusio acetabuli[3].

### Case report:

A 31 year old lady was admitted in K. S. Hegde Charitable Hospital with complaints of pain in both the hips of 10 days duration. She had delivered by Cesarean section a healthy female child. She was on fertility treatment for the past 11 years before the present pregnancy. There was history of abortion twice in the past. No history of any medical illness was present. The immediate post operative period was uneventful and she was discharged. 15 days following the delivery she developed pain in the right hip followed a day later with pain in the both hips which radiated to back of both thighs. Pain was dull aching type and aggravated on movement. On examination there was no abnormality of her vital parameters. No neurovascular deficits were noted.

No systemic abnormalities were present. The radiographs of the hip and spine (Figure 1 and 2) failed to show any changes. All the blood indices were normal. Her 25-hydroxy vitamin D level was found to be 10.36ng/ml as against a normal level of 20- 50 ng/ml indicating a vitamin D deficiency[4]. A diagnosis of osteomalacia was made. She was administered 60000 I U of vitamin D once a week for three months and followed by 60000 I U once a month for six months. Oral and intramuscular analgesics were administered to manage the pain. Physiotherapy was instituted in terms of ultrasound therapy and TransElectrical Nerve Stimulation was started to manage the pain. Her symptoms improved over four six months and she was discharged and told to continue oral vitamin D.

She was regularly reviewed at 3 months intervals and by

one year she was completely relieved of her earlier symptoms, her 25-hydroxy vitamin D level was found to be 24ng/ml indicating a recovery to normal levels.

### Discussion:

Osteomalacia is a generalised condition characterised by softening of the bones caused by defective mineralisation of bone with the most common cause being deficiency of vitamin D which is normally obtained from diet or from exposure to sunlight[1]. There is a growing prevalence of osteomalacia in most countries due to nutritional deficiency[2].

Usually it starts insidiously with pain in the lower lumbar region, symmetrical pain in the thighs and associated multiple bone pains, later there may be weakness of muscles and pathological fractures. Radiological features are pseudofractures and protrusio acetabuli[3].

Our patient had symmetrical hip involvement. She had taken fertility treatment for 11 years and had abortion twice in the past. Her 25-hydroxy vitamin D level was low and all other blood parameters were normal. The radiographs of the thoraco-lumbar spine and pelvis were normal. A diagnosis of osteomalacia secondary to nutritional deficiency was made and she was treated with vitamin D. The condition resolved completely in a year.



**Figure 1: Antero-posterior radiograph of the hip showing no radiological abnormalities.**



**Figure 2: Lateral radiographs of Lumbo sacral spine showing no radiological abnormalities.**

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