

Scurvy - A Diagnosis To Consider In Patient With Bone Pain

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INTRODUCTION:

Vitamin C deficiency is uncommon and seldom screened for patient presented with bone pain. Nutritional history needs to be elicited along with other possible diagnoses of bone and joint pain. We report a child with bone pain resulting from peculiar dietary habits.

CASE REPORT:

A 2 years old male child was brought to the outpatient clinic with history of generalised pain of lower limbs for two months. Pain was intense particularly at night and disturbed his sleep. However, he was active during daytime and no history of lower limb weakness. There was neither trauma nor fever or swelling prior to the onset of pain. Mother denies history of gum bleeding at any occasion.

Dietary history was significant in that the child was almost exclusively breastfeeding. There was no intake of vegetables, fruits and eggs. He seldom took rice and dairy products.

On examination, he was small for his age. His vital signs was normal. He was not pale. Musculoskeletal examinations was unremarkable. He had normal gait. No joint swelling or tenderness in any region of the limbs. No deformity seen with normal range of motion of all joints.

Plain radiograph of lower limbs showed generalised osteopenia with multiple tranverse dense metaphyseal bands at proximal and distal tibia. No findings suggestive of rickets or osteoid osteoma and no periosteal reaction seen.

Routine laboratory investigations were normal. Serum calcium, phosphate and alkaline phosphatase were within normal limit. Serum vitamin C was 13 umol/L (normal: 28 – 120 umol/L). Therefore diagnosis of Vitamin C deficiency was made and he was referred to medical for further management.



Figure 1: Plain radiograph of tibia and femur showed osteopenia and cortical thinning. There were dense transverse line at the metaphyseal region of proximal and distal tibia as well as distal femur. No abnormality seen at the physis.

DISCUSSIONS:

Although scurvy is not a very commonly encountered entity in the modern era, inappropriate dietary intake can lead to vitamin C deficiency. Common clinical presentations are lethargy, poor weight gain, anaemia, gum hypertrophy and bleeding tendency. However, scurvy rarely had skeletal manifestation. Our patient had rare presentation of scurvy as he presented as bone pain. As he had short history of bone pain thus the typical skeletal manifestations of scurvy like physal thickening and sclerosis (Frankel line), adjacent lucent zone on its diaphyseal side (Trummerfeld zone) is absent. Healing should occur rapidly with oral administrations of vitamin C and symptoms expected to resolved after treatment.

CONCLUSIONS:

A high index of suspicion with detailed dietary history is required for prompt diagnosis of scurvy in children with bone and joints symptoms.

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