



POSNA

The Core Curriculum

Scurvy

Objectives

1. Describe the pathophysiology of scurvy
2. Describe presenting clinical symptoms and radiographic features of scurvy

Discussion

Scurvy is very rarely seen now in developing countries, but sporadic reports still surface regarding children subjected to bizarre diets. In certain segments of the population, such as refugees, scurvy may still be evident. Scurvy is perhaps the most easily treated and preventable bone disease. It is associated with a deficiency of vitamin C, which cannot be synthesized by the human. The basic defect is a failure to hydroxylate proline and lysine, as essential step in collagen formation which is dependant on ascorbate. All body parts are thus affected, vascular fragility is a major symptom, bone formation is reduced and what bone is formed lacks tensile strength. Children with scurvy are irritable, may have petechiae, ecchymosis, bone pain, weakness, and of course, poor wound healing. Radiographic findings have been well described, and included diminished bone density and cortical thinning. In addition, a line of radiodensity is apparent just on the metaphyseal side of the physis, but adjacent to this radiodensity is a radiolucent line which results in a very white appearance to the radiodense line, sometimes called the line of Frankel. Cupping of the distal femoral metaphysis has been reported frequently, radiographic changes are most evident at that site. Treatment is very simple, dietary ascorbic acid.

References

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