

Vitamin C Deficiency Mimicry Bone Tumor: Reemerging of Ancient Disease

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INTRODUCTION:

Scurvy, an ancient disease which is due to vitamin C deficiency is a very rare incidence in modern societies. This disease was first described in Ebers Papyrus in 1500 BC. Subsequently, Ascorbic acid was found in 1931 as an active ingredient in Citrus fruits for the treatment of scurvy.

REPORT:

A five-year-old boy with underlying autism spectrum presented with sudden onset right thigh pain followed by swelling and loss of weight. Physical examination revealed tenderness over distal right thigh with fixed flexion deformity. Blood examinations showed only slightly elevated ESR.



Figure 1



Figure 2

Plain right knee x-ray (Fig.2) showing pathognomonic features of scurvy including A. subperiosteal hemorrhage, B. Lucent metaphyseal band, C. Frenkel's line, D. Wimberger ring sign

Initial plain radiograph of the right femur showed increased soft tissue density seen at the distal thigh which led to provisional diagnosis of soft tissue sarcoma or infection (Fig.1) We did consider MRI and muscle biopsy however

further radiograph and discussion with pediatric team coin the scurvy as main diagnosis due to picky eating behavior of the patient. Subsequent radiographs revealed the pathognomonic features of hypovitaminosis C (Fig.2)

Oral vitamin C 100 mg tablet three times a day was initiated and the patient showed tremendous clinical improvement after 3 days. Symptoms were resolved completely after 2 weeks of treatment.

DISCUSSION:

Scurvy is a forgotten disease due to advances in nutrition and food supplements. Moreover, the incidence in Malaysia is rare due to the abundance of tropical fruits which are rich in ascorbic acid.

This unique case due to the combination of the patient's atypical presenting symptoms and pathognomonic signs from radiograph imaging and dietary history. Synovial blood vessel injury, microfractures, and subperiosteal hemorrhage are the main attributions to pain and swelling [1]

CONCLUSION:

This case highlights that this is a rare case with atypical symptoms but treatable disease.

Thorough history, physical examination, and early treatment can avoid life-threatening consequences in the advanced stage of scurvy.

REFERENCES:

1. Scurvy presenting with limp and weakness: a case report. Lund RM, Becker ML, Shapiro S, Allison T, Harris JG. *BMC Pediatr.* 2019;19:228