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ABSTRACT BOOK

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A BOY WITH INABILITY TO WALK; DON'T FORGET ABOUT SCURVY

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Introduction: Scurvy or vitamin C deficiency is infrequent in this modern era; thus, it is often not within the list of differential diagnoses. Scurvy can mimic various rheumatological, orthopedic, neurological, and hematological illnesses. **Case presentation:** We report an eight-year-old boy with autism spectrum disorder with picky eating habits presented with lower limb weakness, joint pain, prolonged fever, and constitutional symptoms. Skin examination showed multiple hyperpigmented scars and gingival hyperpigmentation. Thorough history taking supported by the radiographic finding and a low level of ascorbic acid confirmed the diagnosis of scurvy. With Vitamin C supplementation, the patient showed dramatic improvement and gradually recovered. **Discussion:** The broad clinical picture is generally overlooked as other systemic illnesses cause extensive investigation that delays the diagnosis. The inability to walk is a musculoskeletal symptom in children with scurvy. Generalized systemic symptoms are fever, weakness, malaise, and loss of appetite. Hemorrhagic skin lesions and gingival hyperpigmentation are most specific findings in scurvy. Radiographic findings suggestive of scurvy are located in the metaphysis of all long bones. Dietary history is essential in autism spectrum disorder to diagnose nutritional deficiency due to their selective diet preference. **Conclusion:** The suspicion of scurvy is still low in Malaysia; thus, it is always overlooked or misdiagnosed. The diagnosis of scurvy requires thorough history taking, recognition of clinical findings supported by radiographic evidence, and improvement with ascorbic acid supplementation; confirmatory test is by testing serum ascorbic acid level. Scurvy is preventable if taking adequate vitamin C requirement.

Keywords: Scurvy, Inability to walk

A BOY WITH INABILITY TO WALK; DON'T FORGET ABOUT SCURVY

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ABSTRACT

Scurvy, a vitamin C deficiency, is characterized by a syndrome of multisystem disorder due to defective collagen production and antioxidative functions. Incidence of scurvy is infrequent in this modern era; thus, it is often not within the list of differential diagnoses. We reported an eight-year-old boy with underlying autism spectrum disorder presented with lower limb weakness and other constitutional symptoms. The examination revealed multiple hyperpigmented scars over the upper and lower limbs and gingival hyperpigmentation. With a further history of picky eating habits supported by the radiographic finding, scurvy was suspected and subsequently confirmed by a low level of ascorbic acid. With Vitamin C supplementation and proper nutritional support, the patient recovered well.

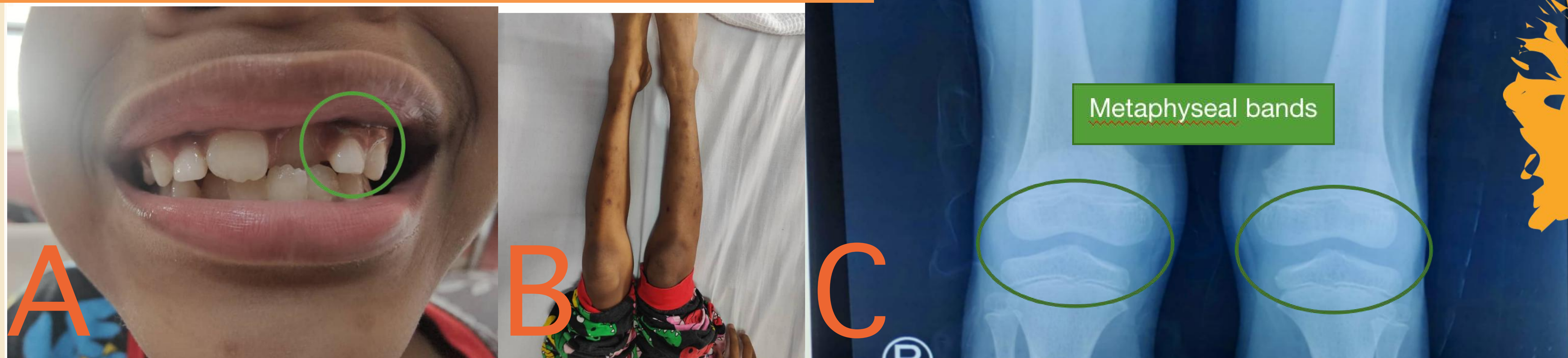
INTRODUCTION

Since the human body cannot synthesize vitamin C, dietary is the only source of this vitamin. The first written accounts of scurvy or vitamin C insufficiency date back to the Egyptians of approximately 1500 BC. Thanks to developments in nutrition and food supplements, it largely vanished in wealthy nations.¹ Due to broad clinical manifestation, diagnosis of scurvy is frequently delayed or missed altogether, leading to extensive laboratory and radiographic investigations as well as may lead to severe complications.² Children with autism spectrum disorder (ASD) are more susceptible to scurvy and other micronutrient deficiencies due to their restricted diets and smaller food selections.³

CASE REPORT

- An eight-year-old boy with autism spectrum disorder with picky eating habits presented with lower limb weakness, joint pain, prolonged fever, and constitutional symptoms.
- Skin examination showed multiple hyperpigmented scars and gingival hyperpigmentation.
- Thorough history taking supported by the radiographic finding and a low level of ascorbic acid confirmed the diagnosis of scurvy.
- With Vitamin C supplementation, the patient showed dramatic improvement and gradually recovered.

INVESTIGATIONS & CLINICAL COURSE



CLINICAL IMAGES OF GUM HYPERPIGMENTATION (A) AND MULTIPLE HYPERPIGMENTED SCARS OVER LOWER LIMB (B). THE RADIOGRAPHIC FINDING OF BOTH LOWER LIMBS SHOWED ILL-DEFINED METAPHYSEAL BANDS AT THE DISTAL METAPHYSIS OF THE BILATERAL FEMUR (C) COULD BE RADIOGRAPHIC MANIFESTATION OF SCURVY. LOW SERUM ASCORBIC ACID CONFIRMED THE DIAGNOSIS OF SCURVY.

DISCUSSION

The broad clinical picture is generally overlooked as other systemic illnesses cause extensive investigation that delays the diagnosis. The inability to walk is a musculoskeletal symptom in children with scurvy. Generalized systemic symptoms are fever, weakness, malaise, and loss of appetite. Hemorrhagic skin lesions and gingival hyperpigmentation are the most specific findings in scurvy. Radiographic findings suggest scurvy is located in the metaphysis of all long bones. Dietary history is essential in Autism Spectrum disorder to diagnose nutritional deficiency due to their selective diet preference.

CONCLUSION

The suspicion of scurvy is still low in Malaysia; thus, it is always overlooked or misdiagnosed. The diagnosis of scurvy requires thorough history taking, recognition of clinical findings supported by radiographic evidence, and improvement with ascorbic acid supplementation; a confirmatory test is by testing serum ascorbic acid level. Scurvy is preventable if taking adequate vitamin C as per requirement.

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