

ADOLESCENT OSTEOMALACIA IN SAUDI ARABIA: A HOSPITAL-BASED STUDY

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ABSTRACT

Background: Osteomalacia is a metabolic bone disorder caused by deficiency of Vitamin D and its active metabolites.

Design and Setting: A retrospective hospital-based study, conducted at King Khalid University Hospital, Riyadh, Saudi Arabia in the period January 1990 and December 2014.

Material and Methods: Medical records were retrospectively reviewed. Various data analysis including detailed history, physical examination, various laboratory investigations and radiological studies. The diagnosis of osteomalacia was based on clinical, radiological and biochemical data.

Results: Twenty-three adolescents were diagnosed with osteomalacia in the period under review. There were various etiologic diagnosis, with nutritional deficiency being the most common. Non-specific symptoms, such as bone pains and aches were the most presenting symptoms and signs. Milk and dairy consumption was generally low. The sun exposure was minimum and the majority of activities are indoor.

Conclusion: A high prevalence of osteomalacia in our adolescent population. Although, nutritional deficiency is being the most common cause which indicates the importance of establishing a preventive measures, however, malabsorption such as celiac disease, or intake of any other drug interfering with Vit. D metabolism, such as anti-epileptic drugs should be seriously considered. Routine serological screening (anti-endomyseal antibodies) for celiac disease, and patients on long-term anti-epileptic medications, should be routinely screened for secondary osteomalacia.

Keywords: Adolescent, osteomalacia, Saudi Arabia.