RICKETS AND OSTEOMALACIA IN SAUDI ARABIA: THE NEED FOR A NATIONAL PREVENTIVE PROGRAM

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ABSTRACT

Rickets and osteomalacia are two distinct clinical disorders of impaired bone mineralization. Rickets is arising throughout the growing skeleton, in infants and children, whilst osteomalacia is occulting after the growth plates have fused in adults. Rickets and osteomalacia are reported with increasing frequency in Saudi Arabia, with vitamin D deficiency, being the most common etiological cause. The major clinical features of rickets and osteomalacia include bone pain and tenderness, and fatigue, muscle weakness, skeletal deformities, and tetany, due to hypocalcemia, in infants. Hypocalcemia, hypophosphataemia, and raised alkaline phosphatase activity are often typically found together with radiological changes such as widening of growth plates in rickets and pseudofractures in osteomalacia. Serum concentration of 25-hydroxyvitamin D are usually low, however, it could be normal in chronic renal failure, or hereditary forms of rickets. Treatment with vitamin D, or its active metabolites and mineral supplementation will generally effective. Measures for prevention of rickets and osteomalacia at a nationwide level should be established.

Keywords: Bone mineralization, Rickets, prevention, Osteomalacia, Saudi Arabia.