

NEPHROLOGY - I**APPROACH TO RICKETS*****Susan Uthup**

Abstract: Rickets is a disease of the growing bone, primarily caused by abnormal calcium and phosphate homeostasis that leads to impaired mineralisation of osteoid at the growth plate. Growth failure and bony deformities are the common features. The diagnosis is established through a clinical evaluation, radiological findings, and biochemical abnormalities, particularly elevated levels of alkaline phosphatase. The broad classification of rickets if it is calcipenic or phosphopenic helps in the clinical evaluation and diagnosis. The approach to rickets should include systematic analysis of clinical features in the scheme of diagnostic work up. An overview of etiopathogenesis, clinical features, diagnostic workup and management of rickets are discussed.

Keywords: Calcipenic rickets, Phosphopenic rickets, Vitamin D, Genetics.

Points to Remember

- *Rickets is a disease of the growing bone due to abnormal calcium and phosphate homeostasis and recent evidence suggests that hypophosphatemia (low serum Pi levels) is the denominator of all forms of rickets.*
- *The broad classification into calcipenic and phosphopenic rickets help in the clinical evaluation and diagnosis.*
- *The approach to rickets should include systematic analysis of clinical features coupled with diagnostic work up including genetic evaluation in situations indicated.*
- *Nutritional deficiency of vitamin D or calcium is still the commonest cause of calcipenic rickets while genetic mutations affecting vitamin D metabolism or action, FGF23 production or degradation, renal phosphate handling or bone mineralization may cause refractory rickets.*
- *Burosumab has been proven to be highly successful in treating XL HPR and Tumor induced osteomalacia.*

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