

RICKETS.

- Rickets is a systemic disease with skeleton involved most, but the nervous system, muscular system and other system were also involved.

RICKETS - Clinical features. [Rickets - Racker's] also called "A".

- Seen in children
- Bones become soft and pliable
- Insufficient mineralization of bones
- Bone dysmorphias, knock-knee legs.
- Bow legs, rickety rosary, pigeon chest
- Harrison's sulcus { transverse depression from costal cartilage to axilla }.

Types of rickets.

- classical vit D deficiency rickets
- Renal rickets (renal osteodystrophy)
- Hypophosphatemic rickets
- vit D resistant rickets
- Endo organ refractoriness.
- Classical vit D deficiency rickets - due to limited exposure to sunlight
- Renal rickets : chronic renal failure - ↓ formation of calcitriol - administration of calcitriol is effective.
- Hypophosphatemic rickets : ↓ renal tubular reabsorption of phosphate supplementation of phosphate with vit D.

- vit D resistant rickets
- symptoms similar to Fanconi's syndrome - reabsorption of phosphate, glucose, amino acids, bicarbonate - defective.

End organ refractoriness

- decrease in number of cytoplasmic receptors
- structurally abnormal receptor

Hypoparathyroidism

- Lack of PTH → hypocalcaemia
hypophosphataemia
- Supplementation - any form of vitamin D₃ along with PTH.

Osteomalacia - clinical features

- Term derived from Greek, osteon (bone) and malakia (softness)
- Demineralization of pre-existing bone.

↓
↑ susceptibility of fracture (pathological).

Abnormalities

- hypocalcemia, hypophosphatemia.
- {severe hypocalcemia not produced. Tetany not manifested}.
- serum ALP increased.

Hypervitaminosis D - vitamin D. excess

- above 1500 units/day
- loss of appetite
- nausea, stupor, hypertension, weight loss
- Hypercalcemia → deposition of Ca²⁺ in artery & kidney.

{ metastatic calcification or calcinosis }.