OSTEODYSTROPHIA FIBROSA

• This is a general term for the diseases of bone which may be due to failure of normal development or abnormal metabolism of the mature bone.

ETIOLOGY

1. Ca, P & vitamin D deficiency
    - Absolute deficiency
    - Imbalance of Ca : P in the diet
2. Deficiency of Ca/ P leads to
    - Hypoplasia which causes rickets in young animal
    - Atrophy resulting in Osteomalacia in adult ruminants
    - Osteodystrophy fibrosis in adult pig & horses
    - Persis is a condition in chicks, due to Osteodystrophy
3. Inadequate nutrition
4. Hypo & Hypervitaminosis A results in Osteodystrophic changes in cattle & swine
5. Prolonged feeding of a High Ca diet in Bulls leads to Hypercalcitonism.
6. Multiple vitamin & mineral deficiency results in Osteodystrophy in cattle
7. Chemical agents eg. chronic lead poisoning, fluorine poisoning
8. Inherited & congenital cause eg. Achondroplasia, chondrodystrophy & osteogenesis imperfecti.
9. In Chronic Interstitial Nephritis, there is High P, So4.
10. 'Rubber Bone' in dogs is a condition which is due to hyperactivity of parathyroid, resulting in
11. demineralization (Fibrous Osteodystrophy).
12. Deficiency of P in Horse → Big head or mandible disease

Characteristic clinical signs

• Distortion and enlargement of bone

• Susceptibility to fracture

• Interference with gait & posture.

Diagnosis

• Detailed history

• Clinical signs

• Radiographic examination

Treatment

- Supplementation of Ca, P & vitamin D
- Vitamin D 10,000 I.U. /kg
- Di calcium Po4
- Adequate bedding