

Hyperparathyroidism

Hyperparathyroidism (*von Recklinghausen's disease of bone*) is a metabolic disorder in which the parathyroid glands produce too much parathyroid hormone. Too much parathyroid hormone causes too much calcium to be released from bone. It may be caused by a functioning parathyroid tumor or compensatory parathyroid hyperplasia due to renal failure, malabsorption, or vitamin D deficiency. There is a female predilection and it affects middle aged adults. The **symptoms include:** loss of appetite, increasing thirst, frequent urination, lethargy and fatigue, muscle weakness, joint pain and constipation. **Important: pathologic fracture** (*due to the marked resorption of bone*) may be the first symptom of the disorder. **Intraorally**, there is diffuse bone loss causing malocclusion and shifting of the teeth.

The chief **radiographic finding** is the appearance of **well-defined cystic radiolucencies** of the jaw, which may be unilocular or multilocular. Partial loss of the lamina dura is seen around the teeth.

See picture #34 in booklet

Important: Histologically, **multinucleated giant cells** are scattered within a delicate fibrocellular stroma. Accumulations of hemosiderin and extravasated red blood cells also re present. As a result, the tissues appear reddish-brown, accounting for the term **“brown tumor.”** These lesions are microscopically identical to central giant cell granulomas.

The disease spectrum of **primary hyperparathyroidism** ranges from asymptomatic cases (*diagnosed from routine serum calcium determinations*), to severe cases of lethargy and occasional coma. Early symptoms include fatigue, weakness, nausea, anorexia, polyuria, thirst, depression, and constipation. Frequently, bone pain and headaches are present. There are several clinical features **associated with primary** hyperparathyroidism, classically described as **“stones, bones, groans, and moans.”** Lesions of the kidneys, skeletal system, GI tract, and nervous system are responsible for this syndrome complex. The renal component includes the presence of renal calculi.

Management of primary hyperparathyroidism is aimed at eliminating the parathyroid pathology. Surgery is the treatment of choice.