

Hypoparathyroidism:

- Deficiency in secretion of PTH leads to Hypoparathyroidism.
- It is characterized by hypocalcemia, hypophosphatemia and low PTH.

Etiology:

- Removal of parathyroid gland or blood supply during a surgery.
- Idiopathic atrophy of parathyroid.
- Carcinoma.
- DiGeorge syndrome (Congenital).
- Autoimmune disease.
- Parathyroiditis.

Clinical features:

- Calcium causes action potential in nerves.

① Tetany is due to hypocalcemia which is due to causes muscle cramps, parosmia, carpopedal spasm, laryngospasm, laryngospasm.

Chvostek's Sign → Gentle tapping over the facial nerve causes contraction of the facial muscle.

Trousseau's Sign → Forearm is made ischemic by applying sphygmomanometer cuff upon arm. The hands go into carpopedal spasm.

Laryngeal spasm causes stridor (laryngismus stridulus).

② Skin becomes dry and itchy; teeth enamel pitted, early loss of teeth. Cataracts develop.

③ Cardiac failure develops due to cardiac arrhythmias, prolonged QT, QT.

④ Calcification of Basal ganglia due to hypophosphatemia causing Chorea, Parkinsonism.

Diagnosis:

↓ calcium, ↑ phosphate,

Pseudo hypoparathyroidism

- The target tissue become resistant to PTH, no overactivity of PT, and hyperplasia, though there is ↑ PTH in blood it mimics like hypoparathyroid

Treatment:

Vitamin D Supplement

$PTH + DTC = PTHrP + DTC$
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Calcitonin is produced by parathyroid cells and stimulates the blood calcium levels which is opposite to parathyroid hormone.