

~~Thyro~~

Thyroiditis

Painful: Acute, Subacute

Painless: Hashimoto's, Riedel's thyroiditis

Drug Induced

1) Acute Suppurative Thyroiditis:

- Thyroid gland is suspt to suppuration due to i) Capsule ii) Rich blood supply iii) Rich lymphatic supply iv) ↑ Iodine content

→ Caused by Pneumococcus, Staphylococcus

→ Painful enlargement with other inflammatory

→ USG to confirm diagnosis

→ Fever and leucocytosis

→ Treatment - Antibiotics

2) Subacute Granulomatous Thyroiditis:

Giant cell on De Quervain's

Cause: After upper respiratory tract ^{Thyroiditis} infection like Mumps, Measles, Coxsackie, Adenovirus

Pathology:

After Antigen on the thyroidal

↓
TCD4+ T cells & Macrophages

↓
Engulfs both ^{viral} Antigens and TBH Antigen, thyroglobulin and thyroid peroxidase

↓
lymph nodes

↓
B cells → Antibodies against both antigen and autoantibody

↓
Macrophages form giant cells and surrounded by lymphocyte causing granuloma

Clinical features:

- Excess T_3, T_4 spills in blood and cause Hypothyroidic state, once injection controls it becomes normal.
- Enlarged painful thyroid gland.
- Hypothyroidic state narvely if the injection persists.

2) Chronic Thyroiditis:

a) Hartnorn's Thyroiditis (Struma lymphomatosa)

- It is autoimmune disease associated with Graves disease, RA, SLE, Sjogren syndrome, pernicious anemia, Myasthenia gravis, HLA DR3, 4, 5.

Pathology:

→ Autoantigen (Molecular Mimicry)

↓
Lymph nodes.

↓
B cells → Plasma cells

↓
Antibody against TSH, Thyroglobulin
and Thyroid peroxidase

↓
Damage.

- Initial Thyrotoxic state (Hartnorn's) but followed by Hypothyroidism due to damage.
- Hurthle Cells (Follicular cells bigger).
- Lymphoid Follicles (Thyroid lymphoma).

Clinical features

- Painless, Painless first Hypothyroid and the Hypothyroidic state.
- ↑ Prolactin →

Investigation: FNAC, T_3, T_4, TSH .

Riedel's Thyroiditis: (Fibrosis on woody thyroid)

- Fibrous tissue replace the normal tissue.
- Pathology = Same like Hashimoto thyroiditis, fibrous tissue nodules causing goitre.
- Fibrosis extends beyond thyroid capsule and affect trachea, oesophagus and one fibrous mass (Tron collar)
- Goitre. Hard like rock.
- Hypothyroidism.
- CT, Scan, MRI, FNAC.
- Thyroid hormone replacement

Euthyroid sick Syndrome

Normal thyroid gland

Abnormal thyroid hormones

- During catabolic states (starvation, or illness)

↓
↓ Deiodinase (which converts T_4 to T_3)
↓
↓ T_3 in blood.

- After catabolic changed, it becomes normal.

↓ T_4 , ↓ T_3 , ↓ TSH, in hypothyroidism.

↓ TSH.

(suppressed)
(normal thyroid follicles)

↓
↓
↓