

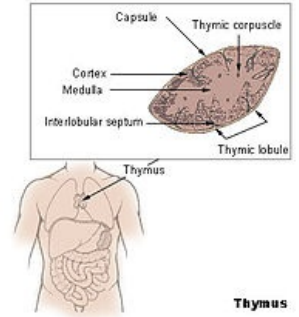
Non-neoplastic disease of thymus

Hyperplasia

Hyperplasia is characterized by the formation of **lymphatic follicles** that are absent in normal thymic tissue. Hyperplasia is typical in patients with autoimmune disease (myasthenia gravis, lupus erythematosus and rheumatoid arthritis).

Dysgenesis

Dysgenesis, or impaired development of the thymus, is part of primary immunodeficiency conditions. Especially in DiGeorge and Nezelof syndromes, when cellular immunity is violated. In these diseases, the thymus is replaced by a **fibrous cord** or is **completely absent**.



Regressive Changes

- **Physiological involution** (lipomatous atrophy) begins during puberty, when **lipocytes** begin to accumulate in the thymus. During involution, there is a reduction in the number of **thymocytes** and at the same time a **calcification of Hassl's corpuscles**. The thymus does not completely disappear during adolescence, a residue can be found even during adulthood.
- **Acute thymic involution** is a disease caused by adrenal steroids. It occurs when the body is under stress, for example during malignant tumors, infections, starvation and cachexia. There is **fragmentation and clustering of thymocytes**, as well as **proliferation of macrophages** and **cystic transformation of Hassal's corpuscles**.

Links

Related Articles

- Thymus
- Thymus (slide)

References

- POVÝŠIL, Ctibor – ŠTEINER, Ivo. *Speciální patologie*. 2. edition. Galén, 2007. 430 pp. ISBN 978-807262-494-2.
- FRCPATH, Vinay Kumar MBBS MD – MBBS, Abul K. Abbas – MD, Jon Aster. *Robbins Basic Pathology*. 9. edition. Elsevier Books, 2012. ISBN 1437717810.