

The concept “one thyroid specific immune mechanism - a specific thyroid disease”. Pleading for adoption of a new nomenclature for immune thyroid diseases - 2013

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Aim&Objectives. To conceptualize new data related to type and level of autoantibodies in thyroiditis Hashimoto, Graves-Basedow disease and related conditions.

Material. **1.** Adoption the integrative concepts of immune network (Jerne, Nobel Prize, 1984) for immune thyroid diseases. **2.** Reiteration the mechanisms of action and regulation of the immune system already conceptualized in 1996 (Perețianu et al, Immunology in Theory and Practice of Medicine, ALL, Bucharest). **3.** Searching on “www. ncbi.nlm.nih.gov/pubmed/” for papers with keywords: thyroid autoantibody, thyroiditis (~ 30000 papers). **4.** New (auto)-antibodies (and antigens/epitopes) were found in immune thyroid diseases.

Method. **1.** Pathogenesis of thyroid diseases has been solved in time – mostly immune. **2.** Most patients have autoantibodies, for which thyroid disease were connected and were called autoimmune. **3.** If the disease is linked to an antibody, then, in the relationship idiotip-epitope, there must be a pathogenic antigen. **4.** Asserting a/one specific immune pathogenic mechanisms for a disease, lead to the idea that there CANNOT be overlapped/more disease because there could not be overlapped/more pathogenic mechanism. **5.** Understanding pathogenetic steps means: only one immune mechanism could act. **6.** In the disease pathogenetic steps there is only one immune mechanism, so the presence of other antibody (along with the specific one) should be linked to the presence of immune mechanisms related to upstream and downstream regulation of the immune system. **7.** The name of every immune thyroid disease should be linked on a sole mechanism.

Results. **1.** The medical literature specify 4 clinical situations: Hashimoto thyroiditis, idiopathic mixedema, Graves-Basedow disease, Riedel thyroiditis. **2.** Criteria for defining these entities are non allowed overlapping: in the same time morphological, functional and immunological (specific auto-antibodies). **3.** This kind of approach is not strict and allow overlapping terms for a disease. **4.** A disease should be linked to a single immune mechanism and a single auto-antibody; therefore, if there are many antibodies in a clinical situation, then there are many diseases in that patient. **5.** Association of many thyroid immune disease in a patient is not a rare situation.

Conclusions

1. Hashimoto thyroiditis is related only to ATPO.
2. Graves-Basedow disease is related only to TRAB.
3. Riedel thyroiditis is related only to IgG4 non-ATPO, non-ATG and non-TRAB.
4. Thyroiditis with only AntiThyroglobuline should be name specifically.
5. Idiopathic mixedema is that immune destruction with no yet specific antibody/antigen identify complex; when identifying the mechanism, the disease have to be otherwise defined.
6. The pathogenesis linked on new immune complexes pendrine/anti-pendrine, NIS/anti-NIS could lead to define new clinical entities.