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THYROID EYE DISEASE

In this lecture author has presented diagnosis, pathogenesis, management and perspectives of Thyroid Eye Disease (TED). For **diagnosis** it is important to know that eye changes are not specific, thyroid function during Graves' disease may be augmented (82%), diminished (3%) or normal (15%) concerning of actual autoimmunity. In 81% hTRAb positive patients with "Euthyroid Graves' disease" , ophtalmpathy will be expressed within 3.5 years. Sometimes some other cause of orbitopathy may be excluded. Author recommends the "**NO SPECS**' classification of eye changes in Graves' disease: class 0 – **N**o signs or symptoms; class 1 - **O**nly signs no symptoms; class 2 – **S**oft tissue involvement; class 3 – **P**roptosis; class 4 – **E**xtraocular muscle involvement; class 5 - **C**orneal involvement; and class 6 – **S**ight loss/ optic nerve involvement. It is very important to assess the activity of eye disease by Clinical Activity Score (CAS) by registration of: pain, redness, swelling and impaired of eye function.

About **etiology** : environmental factors (smoking increases risk of TED) and genetic background (HLA-DBPI*201 protects against Graves' ophthalmopathy but CTLA-4 polymorphism increases risk of GO) are important factors. About **pathogenesis**: GO is primarily a T-cell mediated, but TSH-R antibody related to Clinical Activity Score. For **management** of GO it is recommended: 1. Stop smoking, 2. Treat thyroid disease, and 3. Eye treatment. During treatment by methiamazole eye signs don't change (in 95% patients), after radioiodine treatment in 15% may appear to be worsening, but in radioiodine and prednisone treatment 35% of improvement of exophtalmus was reported. The results are much better in non smokers. Procedures for eye disease treatment are complex, and depend of grade of eye involvement. In very severe ophtalmpathy (involvement of optic nerve) the response rate for different procedure are presented: oral prednisone 73% after 1-2 weeks; i.v. methyl prednisolone 94% after 1-7 days; retrobulbar irradiation 79% after 1-3 months and surgical decompression 82%, few days.

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