Ulla Feldt-Rasmussen

MANAGEMENT OF GRAVES' DISEASE. AN UPDATE

In this lecture following parts were presented: Clinical presentation, Diagnosis of hyperthyroidism, Differential diagnosis of Graves' disease, Treatment, Follow-up and Long term complications to Graves' disease.

Clinical presentations – Symptoms: hyperactivity, heat intolerance, sweating, palpitations, fatigue, weight loss with increased appetite, diarrhea, polyuria, oligomenorrhea, loss of libido. Signs: sinus tachycardia, atria fibrillation, fine tremor, warm and most skin, palmar erythema, onycholysis, pruritus, urticaria, diffuse alopecia, muscle weakness, eyelid retraction, gynecomastia. Specific for Graves' disease: diffuse goiter, thyroid associated ophtalmopathy, thyroid dermopathy, increased frequency of associated autoimmune disorders, lymphadenopathy and splenomegaly.

Diagnosis – Clinical findings are not very specific and sensitive for Graves' disease. Laboratory investigations: plasma TSH, T4 and T3 for diagnosis of hyperthyroidism. Problem in thyroid hormones measurement is interference with plasma protein and other substances. Solution: determination of free hormone index or free hormone concentration.

Differential diagnosis – **Thyroid scintigraphy and ultrasonography, TSH receptor antibody**

Graves' disease treatment – Medical treatment: antithyroid drugs (methimazol, propylhiouracil) and beta blockers, radioiodine and surgery. Clinical advantages and disadvantages: Cure after treatment – antithyroid drugs 40-50%, radioiodine 80-95%, surgery > 95%. Initial improvement after - antithyroid drugs 2 – 4 weeks, radioiodine 4-8 weeks, surgery need atithyroid drug pretreatment. Hypothyroidism - antithyroid drugs 15% after 15 yrs, radioiodine 10-20% first year and 5% every year (depended of RAI doses), surgery similar to radioiodine (for subtotal thyroidectomy).

Graves' disease follow-up – TSH-R antibodies for relapse and remission prediction? It is possible that a combination high TRAb, goiter size, gender and age improve predictability.

Complications to Graves' disease – **cardiac, bones, body composition, muscle strength, neuropsyhological, ophtalmopathy.**

Conclusion – Graves' disease in some patients is curable within a limited time period (months), but in some patients it is a chronic relapsing disease with a number of complication such as TAO, weight gain, cognitive dysfunction etc.

Ulla Feldt-Rasmussen, MD, PhD, Department of Medical Endocrinology, Rigshospitalet, Copenhagen, Denmark; e-mail: ulla.feldt-rasmussen@rh. hosp.dk