*Francesco Lippi*

*University of Pisa, Italy*

## Autoimmune thyroid diseases

The autoimmune chronic thyroiditis or Hashimoto' thyroiditis is an inflammatory autoimmune disease of the thyroid, characterized by a lymphocytic chronic infiltration. This pathology is frequently silent, often hands to a gradual but progressive and irreversible hypo-function of the thyroid. It is the most frequent cause of hypothyroidism in the guilty ones of the world to enough contribution of iodine, while it is relatively being rare in the zones to lack iodine. The greatest incidence is the women it is calculated around 3,5 cases for 1000 inhabitants a year. At the base of the pathology there is an inflammatory autoimmune process that brings to the destruction of the thyroid follicles, caused both from a cells-mediate mechanism and from organ specific antibodies. Once activated the lymphocytic T helper it produces different cytokines that perpetuates and the inflammatory process they make autoimmune chronic. Therefore, both the inflammatory process and the lymphocytic infiltration leads to a reduction of the synthesis of the thyroid hormones. The bio-humoral mechanism seems to have a secondary role. Sometimes in some occasions we can also be found some antibodies anti TSH receptor blocking (TSHRblokingAb) responsible of the atrophy variant (idiopathic myxedema) or even more rarely anti Receptor of the TSH antibodies (TRAB) responsible of the condition of transient hyperthyroidism or at times permanent that rarely can be found in patients with Hashimoto' thyroiditis (Hashitoxicosis) due to the release of the thyroid hormones from the destroyed thyroid cells. Often the chronic thyroiditis can be are associated with other autoimmune diseases (poly-glandular autoimmune syndrome). The diagnosis founds him on the data of laboratory that underline elevated values of specific antibodies (overall AbTPO). Nevertheless in a low percentage of cases 5-10%, we can find a condition of chronic thyroiditis in absence of specific antibodies. In such case the diagnosis is sustained by the aid of the sonography. The typical picture in fact it is peculiar with a markedly hypoechoic thyroid with poor intra-thyroidal vascularization. In many cases is not in demand some treatment because the gullet is small the patient it is often asymptomatic with levels of TSH in the range of the norm and in absence of antibodies. In that case it is not required any therapy a part the use of selenium as anti-oxidant agent and Vitamin D. In patients with hypothyroidism (both subclinical than clinical) the pharmacological treatment was mandatory as the administration of the substitutive therapy with levo-thyroxine especially in children and in the women that are in pregnancy or to the search of pregnancy. The purpose of the hormone-therapy is that to normalize the TSH values with a first control to 45-60 days and once reached the therapeutic remuneration they are enough hormonal

controls TSH and FT4 every 6-12 months. Lasting the therapy in the 50- 90% of the cases is assisted to a reduction of the thyroid volume and consistence both for the normalization of the values of TSH and for the reduction of the lymphocytic infiltrate. Besides it is also assisted to a reduction of the antibodies title, to which has been shown the association it contributes using selenium and vitamin D.

## Biography

Francesco Lippi has completed his M.D degree from the University of Pisa Medical School in 1978 and has completed his speciality degree from University of Pisa Postgraduate School of Endocrinology in the year 1983. He also holds a speciality degree in nuclear medicine from the University of France. He is currently the Professor of Endocrinology in the School of Endocrinology, University of Pisa. He is also the Editorial Board of EC Endocrinology and Metabolism

f.lippi.doc@gmail.com

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