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Autoimmune thyroid diseases

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The prevalence of autoimmune thyroid diseases (AITD) is estimated to be about 5%. AITD are generally of low severity, but can affect significantly the quality of life, and they are a cause of considerable medical costs. The AITD comprise two main clinical presentations, Graves' disease and Hashimoto's thyroiditis, whose clinical features are thyrotoxicosis and hypothyroidism, respectively. AITD is characterized by lymphocytic infiltration of the thyroid parenchyma; recruited T helper 1 lymphocytes are responsible of IFN- γ and TNF- α secretion, which stimulates CXCL10 (the main IFN- γ -inducible chemokines) production from the thyroid cells, generating an amplification feedback loop, that induces the autoimmune process. Epidemiological data show an interaction among environmental triggers and genetic susceptibility as the key factor leading to the initiation of AITD. An association of AITD and papillary thyroid cancer has been suggested. Moreover, AITD have been shown to be associated with other autoimmune disorders (type 1 diabetes, Sjögren's syndrome, rheumatoid arthritis, systemic lupus erythematosus, systemic sclerosis, cryoglobulinemia, etc). These above mentioned data suggest that AITD patients need to be monitored for the appearance of thyroid dysfunctions, thyroid nodules, or other autoimmune disorders.

Biography

Alessandro Antonelli has completed his degree in Medicine, cum laude; in 1985 Post-graduate Specialization in Endocrinology, in 1987 in Occupational Health and in 1992 in Oncology from University of Pisa, Italy. In 1995 he was Visiting Professor, Allegheny-Singer Research Institute of the Medical College of Pennsylvania and Hahneman University in Pittsburgh (USA). He is Associate Prof., Department of Clinical and Experimental Medicine, Pisa, Italy. He has published more than 240 articles in international journals (Impact Factor > 800; H1 44) and has been serving as an Editorial Board Member and reviewer for several international journals.

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