Characteristics of allergy in autoimmune thyroid diseases

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Previous results have demonstrated a) an association with increased total IgE levels; b) high IL-5 serum levels in hyperthyroid Graves' ophthalmopathy and c) The balance shift of IL-12 to IL-5 during methimazole therapy represented a remarkable difference between patients with the presence and absence of ophthalmopathy. Other authors found an influencing effect of elevated IgE levels on the lower remission rate of Graves' hyperthyroidism through the smaller declined TRAK values. Author here argues that the presence of allergic events does not only influence the remission rate but also may play an inducing factor for thyroid autoimmunity. Allergy was studied in Graves' disease, Hashimoto's thyroiditis and euthyroidgoiter using Allergy Screen test for 20 aeroallergens and 20 food allergens. Thyroid hormones (TSH, FT4, FT3), autoantibodies against thyroid peroxidase (anti-TPO), thyroglobulin (anti-Htg) and TSH receptor (TRAK) were measured. A high frequency of sensitized Graves' and Hashimoto's patients was found showing age-related decrease in sensitization, even though some of these patients had no clinical signs of allergy. Sensitized Graves' patients represented a larger allergen spectrum connecting with hyperthyroidism and seasonality, as well as higher values of allergen-specific IgE levels. All plantain and mugwort sensitized patients were also TRAK positive. Soyabean-specific IgE levels demonstrated a strong connection to elevated anti-TPO levels and Graves' ophthalmopathy. Recently, data on mugwort-specific all immunoglobulin isotype levels (IgG, A, M, E) suggest their inducing role for TSH receptor antibodies via antigen mimicry in Graves' hyperthyroidism. In summary, increased aeroallergic sensitization was demonstrated in autoimmune thyroid diseases, particularly in Graves' disease, which may influence the thyroid autoimmunity.

Biography
Ildikó Molnár, MD, has completed her PhD at the age of 39 years at the of Hungarian Academy of Science. Work and research connected her to Kenézy County and Teaching Hospital from 1977 to 2008. Now she is the Chief of EndoMed, Immunoendocrinology, Private Outpatient Clinic from 2008. She is an expert in ELISA, Western and ECL blottings, colorimetric iodine measurement, as well as in allergy testing and bone density measurement with Hologic DEXA. She has published more than 48 papers in reputed journals, 16 chapters and 2 books.

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