with hematoxylin/eosin. T cells were detected by $CD3^+$, $CD4^+$, and $CD8^+$ antibodies and the antigen-presenting dendritic cells with $CD1a^+$ and $CD35^+$ antibodies (DakoCytomation, Glostrup, Denmark).

RESULTS: Before treatment, all children with GD had increased thyroid autoantibody levels, an increased percentage of $CD4^+$ helper cells, and decreased levels of $CD8^+$ suppressor/cytotoxic T cells, which resulted in an elevated CD4/CD8 ratio. The percentage of $CD19^+Cd5^+$ B cells was increased, although the total population of $CD19^+$ B cells did not differ from that of the control group. The number of lymphocytes in the thyroid was decreased in 10 patients after long-term thiamazole treatment. In 5 patients with short-term therapy (<6 months after relapse of GD), the lymphocytes had formed lymphatic follicles: antigen-presenting dendritic cells $CD1a^+CD35^+$ in the germinal center and T-helper $CD4^+$, T-suppressor $CD8^+$, and B cells $CD79^+$ on the edges.

CONCLUSIONS: The primary defect of immunoregulation in GD consists of an increase of T-helper lymphocytes with a simultaneous decrease in the number of T-cytotoxic/suppressor cells. Thiamazole therapy probably leads to reduction of the lymphocyte amount in the thyroid.

*HLA-DQB1*05* ASSOCIATION WITH HASHIMOTO THYROIDITIS IN CHILDREN OF NORTHERN GREEK ORIGIN

Submitted by Styliani Giza

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INTRODUCTION: Hashimoto thyroiditis (HT), an organ-specific autoimmune disorder of the thyroid gland, is considered to be associated with the major histocompatibility complex. Association studies of human leukocyte antigens (HLAs) with HT concern adults and have not revealed consistent results.

OBJECTIVE: We sought to investigate *HLA-DRB1* and *HLA-DQB1* gene polymorphisms in Greek children and adolescents with HT.

METHODS: We analyzed the distribution of *HLA-DRB1* and *HLA-DQB1* alleles in 17 Greek children and adolescents with HT and in 181 randomly chosen healthy subjects from northern Greece. The typing of *HLA-DRB1* and *HLA-DQB1* genes was performed by using polymerase chain reaction with sequence-specific primers. Differences of frequencies for HLA alleles were tested by the χ^2 test.

RESULTS: There was no significant association detected between HT and *HLA-DRB1* or *HLA-DQB1* alleles. However, *HLA-DRB1*16* was slightly significantly increased in patients with HT (41.2%) compared with that in controls (19.3%) ($P = .057$; relative risk: 2.92), and *HLA-DQB1*05* was significantly increased in patients with an age of diagnosis of >10 years (87.5%) as compared with those with an age of diagnosis of ≤10 years (33.3%) ($P = .05$; relative risk: 14).

CONCLUSIONS: This is the first study to examine children and adolescents from northern Greece with HT and analyze the distribution of *HLA-DRB1* and *HLA-DQB1* alleles according to the age of onset of HT. However, this study needs to include a greater number of patients to ascertain the possibility of an association and avoid the result of a chance event or random variation.

IMPAIRED DIURNAL BLOOD PRESSURE AND HEART RATE VARIATION AND THEIR RELATIONSHIP WITH LEFT-VENTRICULAR FUNCTION IN ADOLESCENTS WITH TYPE 1 DIABETES MELLITUS

Submitted by Kyriaki Karavanaki

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INTRODUCTION: Diabetic cardiomyopathy is a well-defined complication of diabetes that occurs in the absence of ischemic heart disease or hypertension and has been associated with autonomic dysfunction.

OBJECTIVE: Our aim was to evaluate diurnal blood pressure (BP) fluctuations and autonomic function and their possible association with left-ventricular function in adolescents with type 1 diabetes mellitus.

METHODS: In 48 normotensive, normoalbuminuric diabetic adolescents, with a mean (±SD) age of 17.3 (±4.1) years and diabetes duration of 8.5 (±3.3) years, 24-hour ambulatory BP and heart rate (HR) monitoring was performed. Left-ventricular end-diastolic and end-systolic diameters were estimated by echocardiography, and left-ventricular mass index (LVMI) was calculated.

RESULTS: The patients were divided into 2 groups according to the absence of decrease (nondippers) or the decrease (dippers) of nocturnal diastolic BP. The nondippers presented, in comparison with the dippers, reduced mean HR during 24 hours (79.6 vs 84.0 beats/minute; $P = .05$) and also during daytime (81.3 vs 86.0

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