syndrome that has attracted a great deal of attention because of an uneven neurolinguistic profile characterized by relative strengths in language, facial processing, and social cognition in the context of poorer spatial cognition, planning, and problem solving. WS has also been used as evidence for the existence of dissociations within subsystems of the language module itself. It has been reported that individuals with WS perform better on grammatical versus lexical tasks and on regular versus irregular forms.

**OBJECTIVE:** This study addressed 2 main questions: (1) Do individuals with WS show differences between language and cognition? (2) Do individuals with WS perform differently across tasks that tap different aspects of language?

**METHODS:** We investigated nonverbal and verbal abilities of 20 Greek-speaking children with WS (aged 6–18 years with molecular definition of chromosome 7 deletions) and compared their performance to a group of 20 normal children aged 4 to 10 years. The 2 groups were matched on language ability (comprehension and expression) through the Diagnostic Verbal IQ Test. Verbal ability was measured by 3 experimental linguistic measures that assessed comprehension of pronouns and production of verbs and nouns.

**RESULTS:** Nonverbal IQ was low and ranged from 40 to 68 points. Those in the WS group, as a whole, showed unimpaired performance on pronouns but faced difficulties in using verbs and nouns. Great variation in performance was evident, which highlights the heterogeneity of the group. A subgroup of individuals with WS showed clear dissociations between language and cognition and within language.

**CONCLUSIONS:** Our results indicate that (1) there is a clear dissociation between language and cognition and (2) children with WS show strengths on some aspects of their linguistic development.

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**Endocrinology**

**LYMPHOCYTES IN PERIPHERAL BLOOD AND THYROID TISSUE IN CHILDREN WITH GRAVES’ DISEASE**

Submitted by Iwona Ben-Skowronek

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**OBJECTIVE:** Our goal was to analyze interactions of lymphocytes in peripheral blood and thyroid tissue in children with Graves’ disease (GD).

**METHODS:** The prospective study concerned 15 children affected with GD and 15 healthy children. The levels of autoantibodies against thyrotropin receptor, thyroid peroxidase, and thyroglobulin were assayed. Monoclonal antibodies (Ortho Diagnostic Systems, Raritan, NJ) were used to define peripheral blood lymphocyte subsets and analyzed by using a flow cytometer. After thyroidectomy, thyroid specimens were stained...
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 χ² test.

**RESULTS:** There was no significant association detected between HT and HLA-DRB1 or HLA-DQB1 alleles. However, HLA-DRB1*16 was 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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