SUBCLINICAL HYPOTHYROIDISM PREVALENCE IN CHILDREN EVALUATED FOR SHORT STATURE

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Introduction: Thyroid hormones are critical to normal growth and skeletal development (1). Therefore, measure of serum thyrotropin (TSH) level is a part of short stature (SS) work-up (2). Subclinical hypothyroidism (SCH) is characterized by high TSH levels with normal thyroid hormone level (3). The significance of SCH on growth is yet to be determined. Objective: To investigate SCH prevalence and antithyroid antibodies presence in SS patients and compare them to normal counterparts, as well as, consider possible clinical and laboratorial data associated to SCH on these patients. Subjects and Methods: 766 patients seen at the Outpatient Short Stature Clinic of the Hospital de Clinicas de Porto Alegre, Brazil, who were evaluated with TSH measurement as part of initial evaluation were included. After exclusion of chronic systemic diseases and genetic syndromes, 367 patients were selected (91 with normal stature and 276 short stature patients). Statistical Analysis: SPSS, p < 0.05. Results and Discussion: Patients were on average 10.6 years old, mostly males (70.8%) and pre-pubertal (62.4%). SCH prevalence was around 12.5% in both groups. No height difference was found when compared 46 SCH patients and 321 normal TSH level patients. Conclusion: Subclinical hypothyroidism is a frequent finding on short stature patients. Autoimmunity is not usually the cause of thyroid dysfunction. Our results raises the question whether levothyroxine treatment and further TSH normalization is an useful tool on the treatment of SCH short stature children. Randomized trials are needed to elucidate this issue.