Thyroid profile of pediatric patients with antituberculous treatment

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Introduction: Some patients receiving antituberculous drugs may develop thyroid disorders; hypothyroidism has been reported in patients receiving ethionamide and rifampicin.

Aim: The aim of the present study is to evaluate the levels of thyroid hormones in pediatric patients diagnosed with tuberculosis at the beginning and at the end of antituberculous therapy.

Materials & Methods: Prospective study. Study of patients less than 15 years of age, diagnosed with pulmonary tuberculosis, received antituberculous therapy: "Strictly Supervised Shortened Treatment" (DOTS), of two phases; the first of 52 doses of isoniazid, rifampicin and pyrazinamide; the second phase of 104 doses of isonacid and rifampicin. Plasma levels of thyrotropin (TSH), thyroxine (T4), free thyroxine (FT4), and triiodothyronine (T3) were determined at the beginning of treatment, three months after and at the end of antituberculous therapy.

Results: We studied 19 patients who completed the DOTS. All of them were euthyroid at the beginning of antituberculous therapy. In 3 children (15.8% of the total) the non-thyroidal illness syndrome was diagnosed (T3 levels low with normal values of the other hormones), at 3 and 6 months of treatment; 4 patients (21.0%) presented subclinical hypothyroidism (TSH levels elevated with normal values of FT4, T4 and T3), at the end of therapy; in the remaining 12 patients (63.2%), hormone levels analyzed were normal.

Discussion: It is important to analyze the thyroid profile in patients receiving antituberculous treatment, since they may develop non-thyroidal illness syndrome or hypothyroidism.

Biography
Juan Pablo Hayes Dorado is graduated from San Francisco Xavier University in Chuquisaca, Bolivia. He did a Residency in Pediatrics at Santa Cruz Hospital, Bolivia. Studies in Pediatric Endocrinology at Hospital de Clinicas. University of Sao Paulo. Brazil. Member of the Bolivian Society of Pediatrics and the Latin American Society of Pediatric Endocrinology. He works as a Pediatric Endocrinologist and Professor of Pediatrics at Santa Cruz Hospital, Bolivia. Editor of the Journal of Cruceña Society of Pediatrics and Coeditor of the Journal of Bolivian Society of Pediatrics. Author of several articles in various national and international journals.

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