

title:

Conversion of hypothyroidism to hyperthyroidism in A child with Down's syndrome.

abstract:

Background:

Patients with Down's syndrome have an increased prevalence of autoimmune disorders affecting both endocrine and non endocrine organs. The commonest autoimmune disease is related to the thyroid gland.

Objective and hypotheses:

To describe a child with down's syndrome who has been treated of hypothyroidism But converted to hyperthyroidism few years later .

Method:

A 5-year old boy with Down's syndrome presented with constipation, easy fatigability and cold intolerance.

A clinical suspicion of hypothyroidism was considered, confirmed by a high serum (TSH) level (25.63mU/L), and a low Free Thyroxine (FT4) of 8.2pmol/L. Levothyroxine was prescribed.

Requirement for levothyroxine gradually decreased , TSH levels became below 0.01mU/L , and FT4 was increasing (44.69. pmol/l) . Child also developed symptoms and signs of hyperthyroidism ,so levothyroxine was finally stopped.

But the child kept irritable and restless. His TSH was less than 0.01mU/L, FT4 level still high(45.31 pmol/l) .

TSH-receptor antibodies (86.9IU/L) and thyroid peroxidase antibody (386.46IU/mL). Thyroid ultrasonography showed increased vascularity . thyroid scan showed a bit enlarged thyroid gland with no scintigraphic evidence of gross nodularity, with elevated thyroid uptake (6.1%).

Therefore, the diagnosis of Grave's disease was settled and carbimazole started. The child's was followed-up every 3 months till present and he is stable clinically with normal TSH and FT4

Results:

In this case report, we presented a boy with Down's syndrome who developed hyperthyroidism after few years of established hypothyroidism. The condition kept euthyroid on therapy for few years. However, when he developed hyperthyroidism, levothyroxine was gradually stopped. The child remained hyperthyroid after stopping levothyroxine. Therefore, anti-thyroid treatment was started.

Conclusion:

The presence of different antibodies specific to Hashimoto's and Graves' disease, puts the thyroid into a push-pull situation(hypo- or hyperthyroidism).