

TRISOMY 21 AND THYROID DYSFUNCTION: ABOUT 50 PEDIATRIC CASES

INTRODUCTION

Trisomy 21 is a chromosomal abnormality that predisposes to autoimmune diseases. among them the thyroid dysfunction is frequently observed

Objective and hypotheses

Study the various thyroid diseases in trisomy patients and their therapeutic management

METHOD

This is a retrospective study of 50 cases of Down syndrome children with thyroid disease, collected over a period of 9 years (2006-2015). All children underwent a complete physical examination, a thyroid balance (FT4 and FT3 or -TSH TPO and anti us- AC or TSI) and a cervical ultrasound

RESULTS

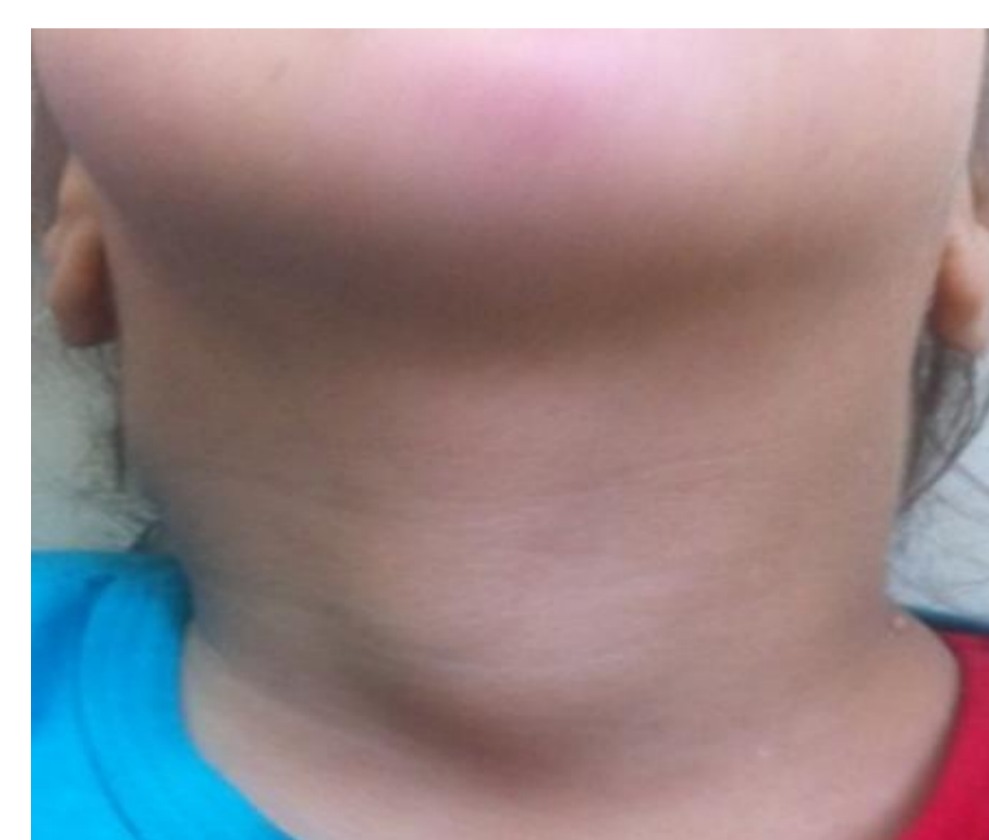
There are 50 patients : 34 boys and 16 girls. The mean age of diagnosis of thyroid dysfunction was 4 years (20 months-15 years). It was hypothyroidism in 46 cases and hyperthyroidism in 4 cases.

The discovery of hypothyroidism was made on the occasion of a systematic review in 36 cases before signs of hypothyroidism in 10 cases. Hypothyroidism was compensated in 78% with an average rate of 17 pmol/L FT4 and TSH 8.5 μ UI / mL.

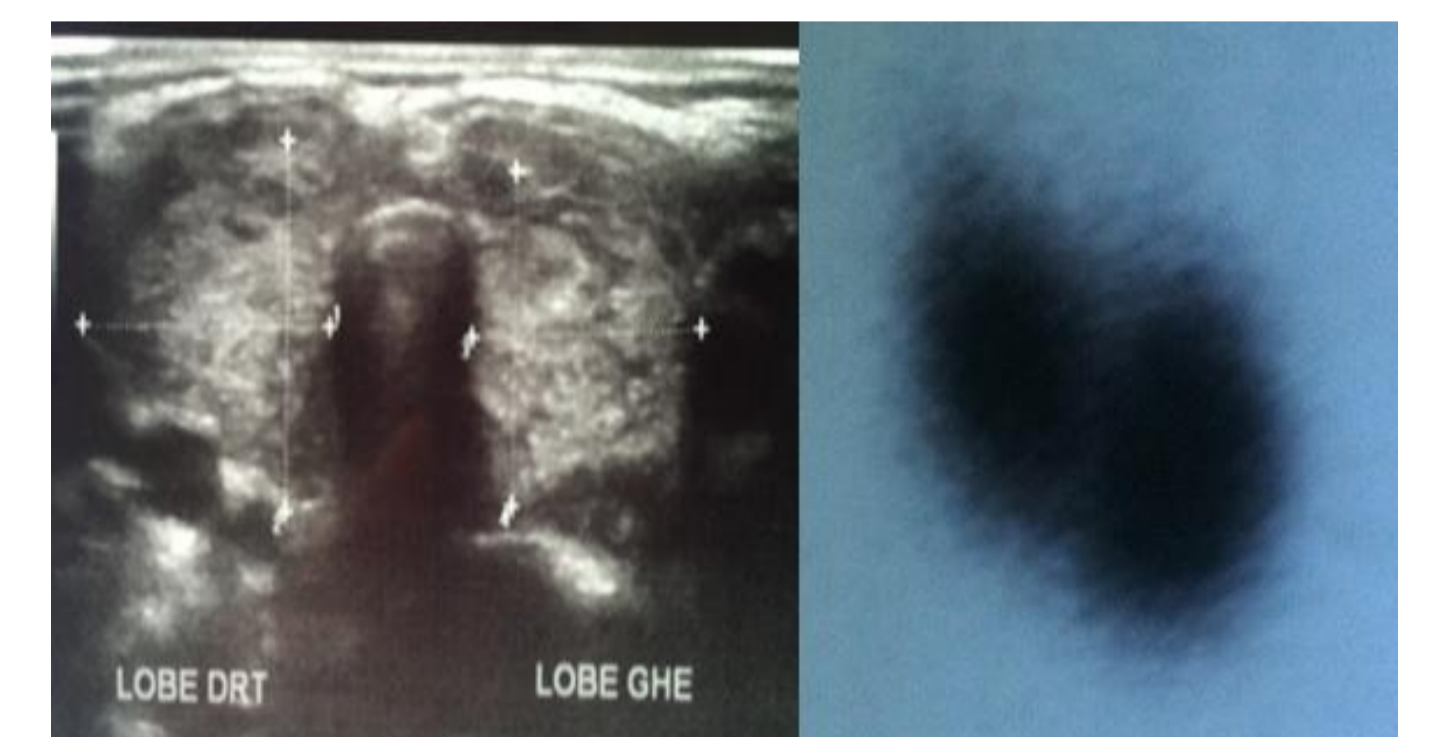
The anti-thyroid peroxidase antibodies were positive in half the cases with aspect of thyroiditis at cervical ultrasound . . Treatment with L-thyroxine quickly led to the normalization of TSH.

Hyperthyroidism was discovered following a tachycardia and eye signs. Hormonal balance showed low TSH (<0.01 μ UI / mL) and high FT4 (mean 40 pmol / L) . Cervical ultrasound revealed a thyroiditis aspect with anti TPO AC positive.

There was not visceral or metabolic complications. The initiation of treatment with antithyroid drug led to a definite hypothyroidism



Grave's disease with bilateral exophthalmia



DISCUSSION

Trisomy 21 is the main alteration karyotype at birth. In addition to a dysmorphic syndrome , many conditions associated aggravate its functional and vital prognosis Several endocrine disorders are described. The thyroid disorders are the most frequent. Several endocrine abnormalities are described. The thyroid disorders are the most frequent

Hypothyroidism is the most endocrinopathy ; It may appear at birth or later; It must be systematically sought and treated. The absence of thyroid hormone substitution exacerbate mental disorders , cause growth delay and lipid metabolism disorders.. The hyperthyroidism is another complication o that must be recognized. Its etiology is dominated by Graves' disease. Hyperthyroidism is revealed by tachycardia and mood disorders. The positivity of anti TSH receptor antibodies allows the diagnosis Hormonal treatment (antithyroid drugs) normalizes quickly balance sheet before any cardiac complications

CONCLUSION

Thyroid disease is common in children with Down syndrome . Hypothyroidism is more common. a systematic monitoring of thyroid function is necessary