Introduction

Hashimoto’s thyroiditis is an autoimmune condition most common in females but can be also found in children with a prevalence of 1.2%. Hypothyroidism in children is associated with severe growth delay.

Case report

11 6/12-year old boy presenting with
- small height for age (123 cm, < -3SD)
- important weight gain
- fatigue
- growing rate of less than 2 cm/year

- fT4=0.3ng/ml (normal 0.9-1.9ng/ml)
- TSH= 35mIU/L (normal 0.4-6mIU/L)
- anti TPO - 326U/L (positive when >50U/L)
- basal GH - 0.8 ng/ml
- insulin hypoglycemia test - 6.2 ng/ml (>10)
- clonidin test - 5.8 ng/ml (>10)
- arginin test - 3.1 ng/ml (>10)
- IGF 1 – 97 ng/ml (111-996)

Bone age: 8 years

Ultrasound: small, hypoechoic thyroid

Euthyrox 100 µg/d
rGH 0.035 mg/kg/d

Slightly dysmorphic growth delay

Patient evolution under therapy

Discussions

- juvenile onset hypothyroidism has an insidious onset
- late onset of severe growth deceleration should be accompanied by evaluation of thyroid function, especially when bone age is importantly delayed
- important stature handicap in patients with juvenile onset hypothyroidism may be an indication for substitution coupled with rGH therapy, with excellent outcome

Selected references:
3. Catch-up growth after childhood-onset substitution in primary hypothyroidism: is it a guide towards optimal growth hormone treatment in idiopathic growth hormone deficiency?