

AN IMPRESSIVE RECOVERY OF ARRESTED GROWTH AND PUBERTY IN A 13 YEAR OLD BOY AFTER BEING TREATED FOR SIMULTANEOUSLY DIAGNOSED SEVERE HYPOTHYROIDISM AND COELIAC DISEASE.

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BACKGROUND -PURPOSE

- Individuals with celiac disease are more likely to develop autoimmune thyroid disease compare to the general population and vice versa. Undiagnosed in childhood and adolescence, both diseases compromise final height. Clinical experience shows that near complete catch-up growth is possible in infants and young children, but not in children near or in puberty.
- The purpose of the present study is to report on the impressive acceleration of arrested growth in a 13 year old male with short stature and arrested puberty, after successful treatment for severe hypothyroidism and coeliac disease.

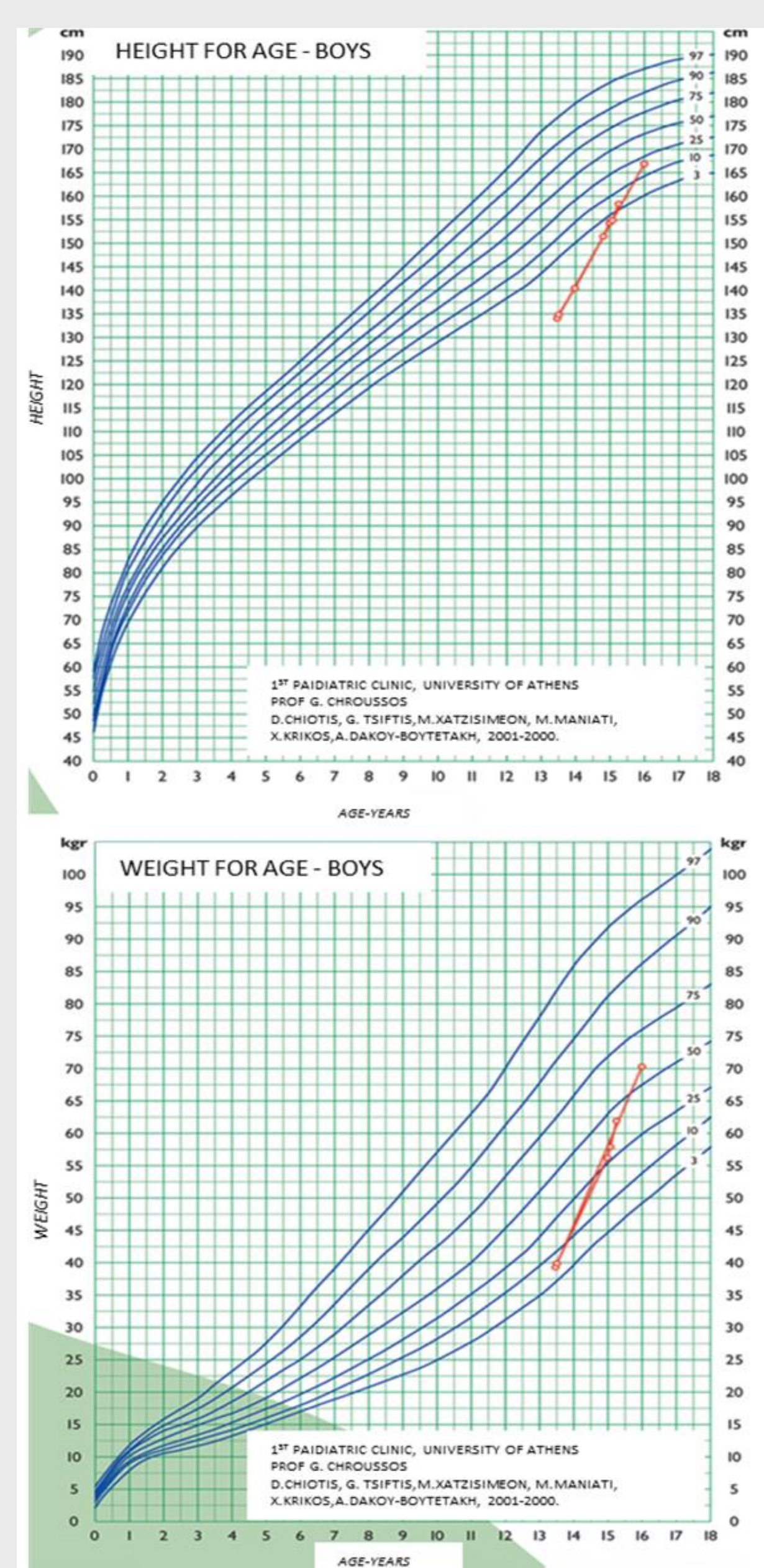


Fig 1: Height and weight charts from his first visit until today.

CASE PRESENTATION

- A 13 years old boy, presented to our Pediatric Endocrinology clinic for evaluation of short stature. He was bullied at school for being very short and felt constantly tired. He was born at term with a normal birth weight and length (Wt: 3.95 Kg, Lt: 50cm.). There were limited data on his previous growth measurements.
- On examination: Height was 134 cm (-3,5 SDS) and Weight was 39 kg. His pubertal status revealed testicular volume of 10 ml and pubic hair Tanner stage 3. He had a bone age of 7 years at the Chronological Age of 13 years. The Mid Parental Height was 180 cm and the Target height: 175,5 cm-185,5 cm.
- Laboratory tests revealed positive thyroid antibodies, a TSH of 500 µIU/ml, coeliac disease antibodies positive and an increased prolactine. An MRI showed an enlarged pituitary. Coeliac disease was confirmed with a jejunal biopsy.
- He was commenced on thyroxine and gluten free diet. His compliance was excellent.
- Today he is 16 years old. He has gained 34 cm in 2,5 years. He is now 167 cm, (-1,5 SDS) – Fig 1. His testicular volume has increased to 20 ml each and fortunately he has a delayed bone age (2 years) – Fig 2.

CONCLUSIONS

- Despite the patient's late presentation for short stature and concomitant late diagnosis of hypothyroidism and coeliac disease, he is expected, after treatment, to reach his lowest target height. Our patient is an example of impressive "catch up growth" in puberty and highlights the importance of therapy compliance.



Fig 2: Bone age at age of 16 – delayed bone age ≈ 2 years

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