

Hashimoto's Thyroiditis in childhood: an 8 year experience of a district pediatric hospital

M. Oikonomakou, E.Katsikareli, C.Vaggopoulou, G.Krokidas, M.Eliopoulou
General Children Hospital of Patras <Karamandanio>

Background

Hashimoto's thyroiditis (HT) is the most common acquired thyroid disease in children and adolescents. At the time of diagnosis, children and adolescents may be asymptomatic or may be referred with goiter and/or hypothyroid symptoms. Since the proper function of thyroid gland is necessary for normal growth and development of children, physicians should be aware of the suitable screening and management.

Results

- ✓ Of the 110 patients included in the study, 70.9% were female and 29.1% were male (ratio 2.4/1). The mean age of the patients at the time of diagnosis was $10.2y \pm 2.6y$. (range 3.3-14.6 y).
- ✓ The most common complaint at presentation was goiter (43.5%), followed by incidental finding (27%) – often checked due to positive family history, growth retardation (10%), fatigue (7%), weight gain (6%), irregular menstrual cycle (4%), increased appetite (1%) and anaemia (0.5%) as it is demonstrated at the chart.
- ✓ Thyroid function impairment and/or goiter were present in the family of 40% of patients. Co-existed autoimmune diseases were observed in 9% (6 subjects diabetes mellitus type 1, 2 celiac disease and 2 alopecia).
- ✓ The prevalence of goiter is statistically significant higher in females. At presentation, the laboratory findings of thyroid function are demonstrated at the table.
- ✓ During the follow-up, 18% of the euthyroid patients presented subclinical hypothyroidism and were treated. The use of levothyroxine significantly decrease the goiter in HT patients.

Table : Thyroid status of patients at presentation.

| | n | % |
|-----------------------------|-----|------|
| Hypothyroidism | 8 | 7.3 |
| Subclinical hypothyroidism* | 48 | 43.6 |
| Euthyroidism | 52 | 47.3 |
| Hyperthyroidism | 2 | 1.8 |
| Total | 110 | 100 |

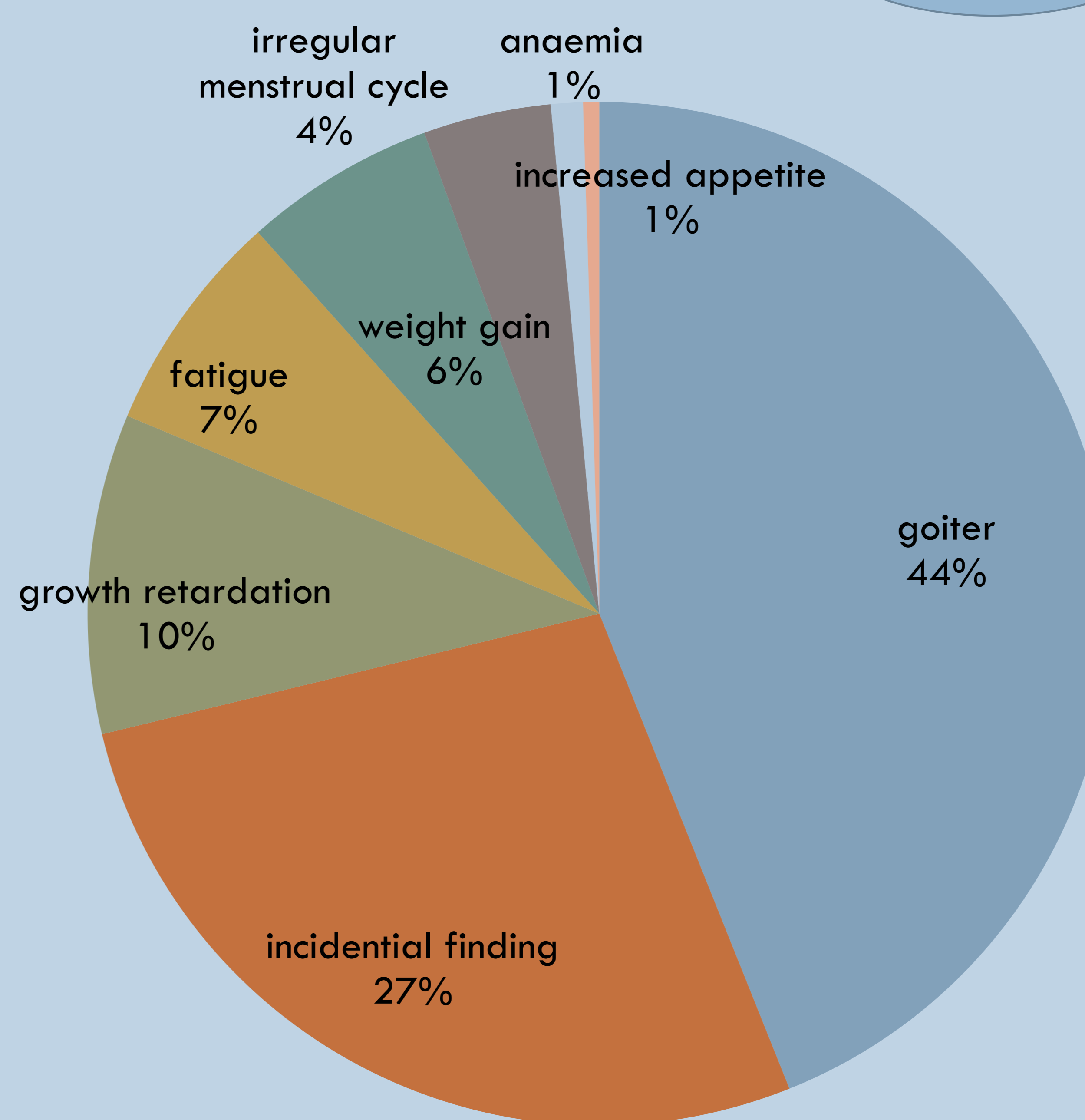
Objective and Hypotheses

The aim of the present study was to observe clinical manifestations, clinical course and long term outcomes of HT in children and adolescents of an outpatient endocrine clinic of a district pediatric hospital.

Methods

The outpatient records of 110 children and adolescents who presented to our center from 2008-2015, were evaluated retrospectively. HT patients had regularly attended the scheduled visits for about 4.5 years. Age and gender of the patients, as well as their complaints at the time of presentation, family history of thyroid disease, concomitant autoimmune diseases, TSH and fT4 levels and ultrasonography findings were reported.

TSH and fT4 levels were quantified using an electrochemiluminescence immunoassay. The reference ranges for TSH, fT4 are 0.5–5.0 μ IU/ml, and 0.89- 1.37 ng/dl respectively



Conclusion

HT is more common in female and the complaint strongest referred is goiter. A positive family history of autoimmune thyroid disease consists a risk factor for hypothyroidism or subclinical hypothyroidism and is associated with higher prevalence of HT.

References

- Rosalind S. Brown. (2013). Autoimmune Thyroiditis in Childhood, *Clin Res Pediatr Endocrinol Clin.* , 5 : 45–49
- De Luca et al. (2013). Hashimoto's thyroiditis in childhood: presentation modes and evolution over time, *Italian Journal of Pediatrics* , 39: 8

