

HASHIMOTO THYROIDITIS: LONG TERM FOLLOW-UP FROM CHILDHOOD TO YOUNG ADULTHOOD

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INTRODUCTION

The evolution of Hashimoto Thyroiditis (HT) has been investigated by several studies both in pediatric and adult age. However, there are limited data on the progression of the disease from childhood to adulthood

AIM

Aim of the study was to describe the evolution of thyroid function in children with HT from childhood to young adulthood.

METHOD

The diagnosis of HT was defined by the presence of anti-thyroid peroxidase antibodies (AbTPO) and/or anti-thyroglobulin antibodies (AbTG), and the typical hypoechoic ultrasound pattern. Patients with chromosomal abnormalities were excluded. We reviewed the medical charts of 131 children (median age 10.5 (3.33-17.5) years, 104 females) seen for HT in 2006 at the Pediatric Endocrine Unit of the Pediatric Hospital Microcitemico in Cagliari. Personal and medical history, clinical evaluation and laboratory data collected during the first visit were reported as well as data referring to the follow-up and the last visit (median age: 18 years (10.33-33.5)). Then, all the patients, that had reached adult age by that time, were called by Endocrine Adult Clinic and for 50 of them data regarding their last endocrinological visit were reported (median age: 25.25 (18.91-37.16) years, 39 female).

RESULTS

Between the first and the last pediatric visit (table 1), euthyroidism persisted in 82.5% of 80 patients with initial normal thyroid function. A progression toward subclinical hypothyroidism (SH) or overt hypothyroidism (OH) was observed in 5% and 11.25% of subjects, respectively. Amongst 33 patients with SH at first visit, 36.4% reverted to euthyroidism while 9.1% maintained their condition. Finally, 54.5% of them showed an evolution of SH to OH. (Figure 1)

Between the last pediatric visit and the last endocrinological visit (table 1), 70.4% of 27 young adults were still euthyroid, while 25.9 % developed OH (figure 2).

Considering the interval (table 1) between the first pediatric visit and the last available endocrinological visit, 58.6% of 29 euthyroid children and adolescents were still in this condition while 38% have developed OH. In contrast, 82.4% of the 17 patients with initial SH have developed OH (figure 3).

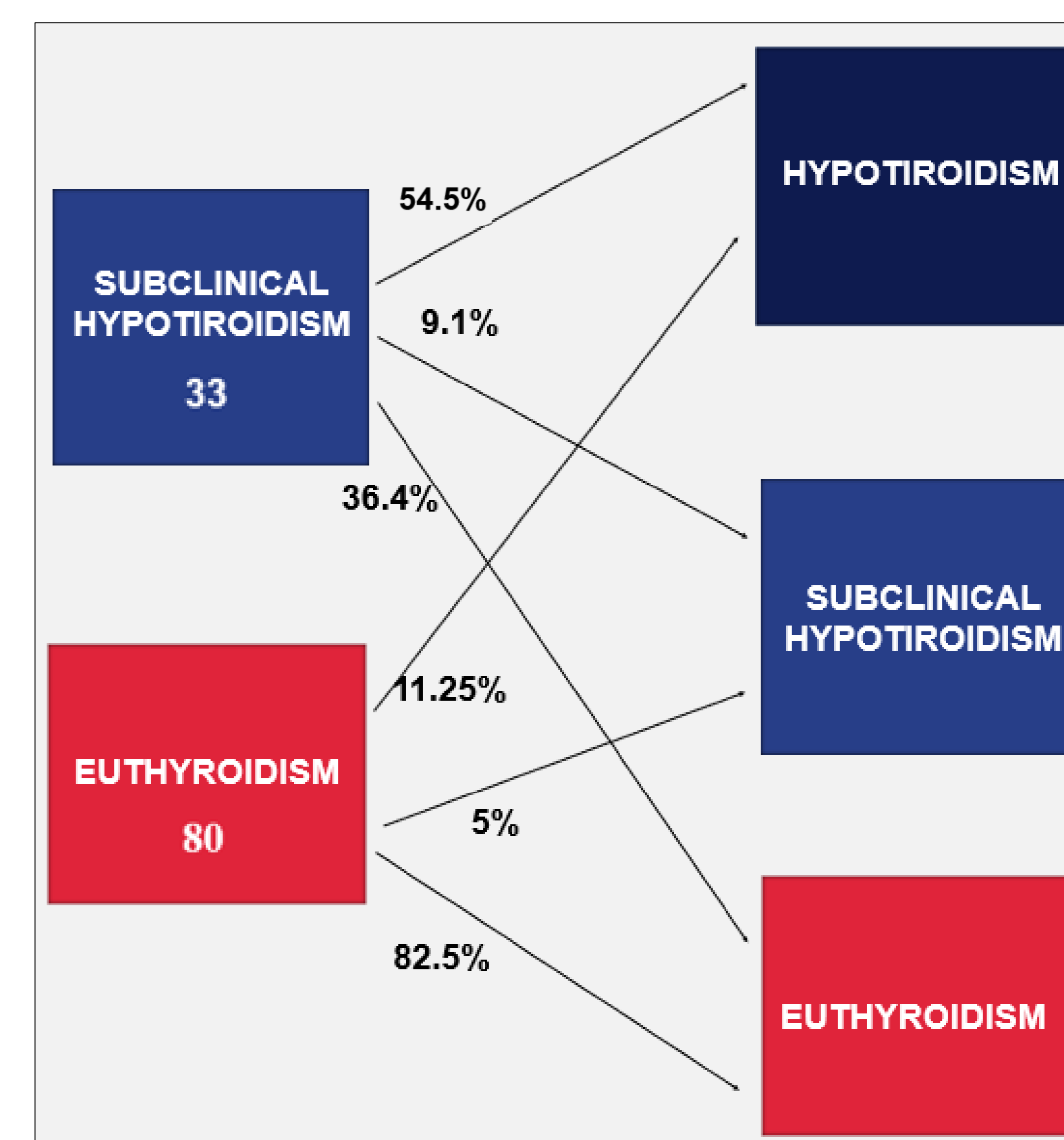


Figure 1: Evolution between the first and the last pediatric visit

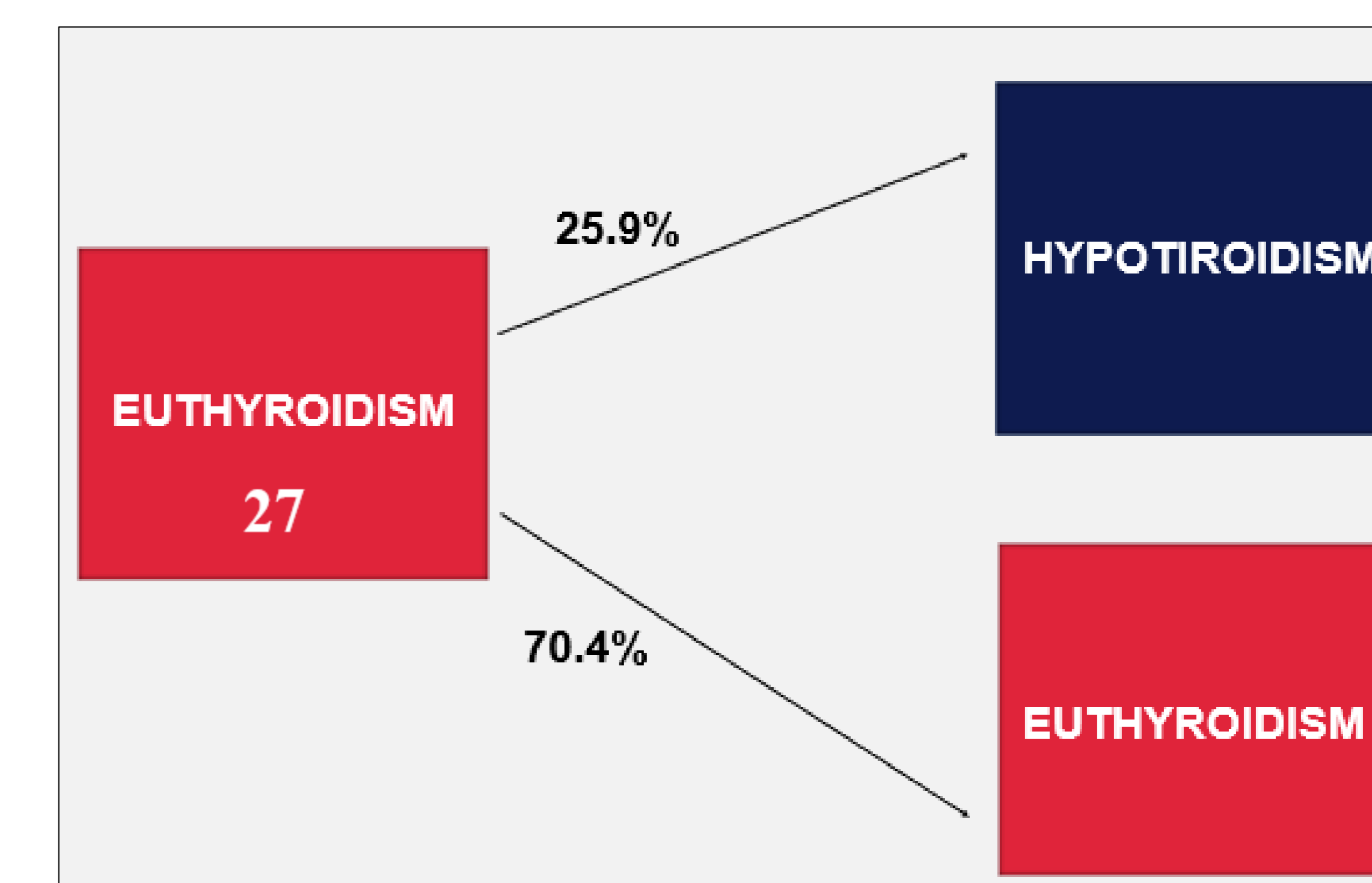


Figure 2: Evolution between the last pediatric visit and the last endocrinological visit

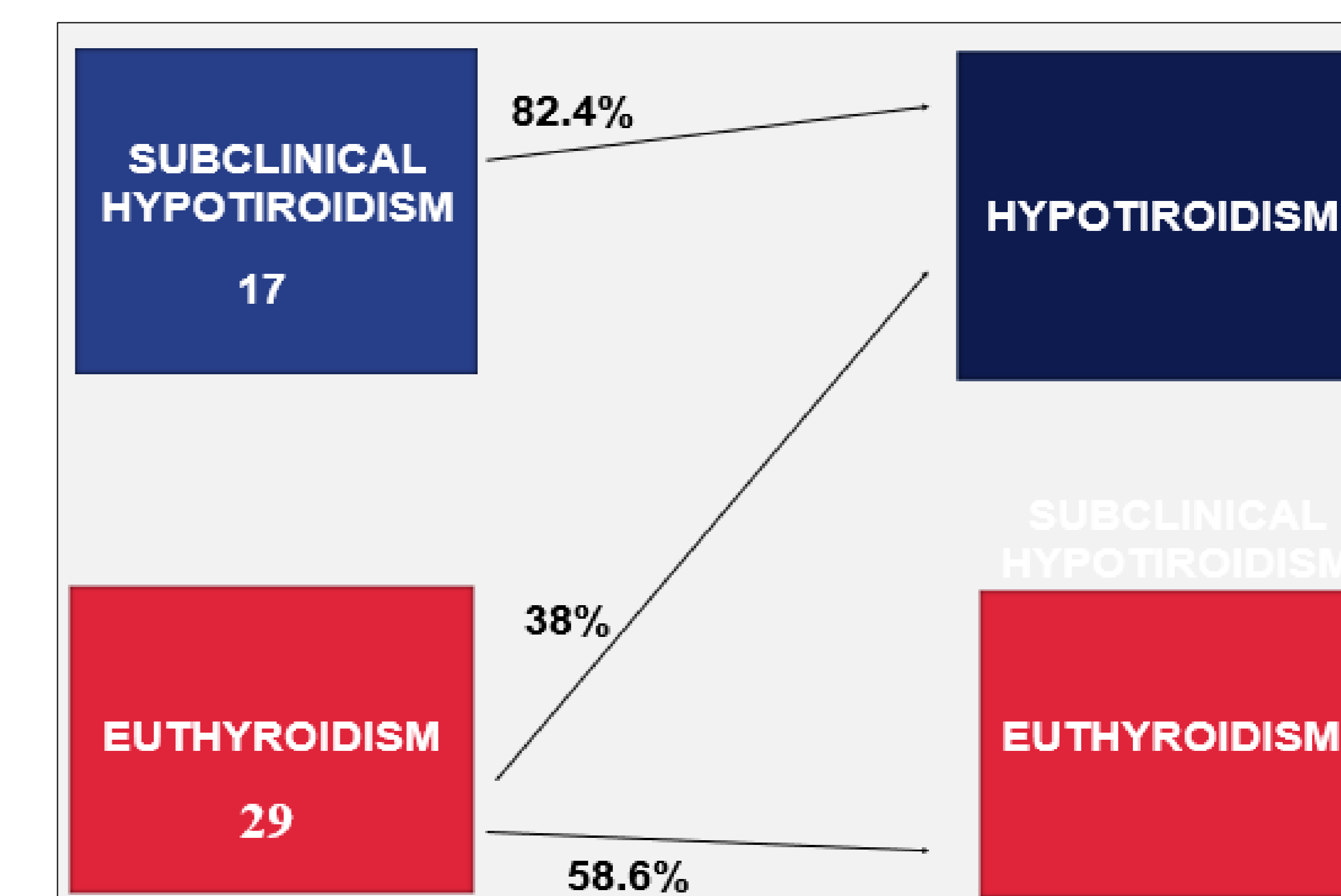


Figure 3: Evolution between the first pediatric visit and the last endocrinological visit

CONCLUSIONS

Euthyroidism was maintained in 82.5% of patients during the pediatric age, in 70,4% after pediatric age and in 58.6% of patients after a long-term follow-up. Euthyroidism and SH progressed to OH in 38% and 82.4% of cases respectively. Further studies are required to define possible HT progression predictive factors

CONTACT INFORMATION

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	Number of subjects	Median duration of the period (years)	F/M	Median age at the beginning of the period (years)	Median age at the end of the period (years)
First pediatric visit – last pediatric visit	131	7.33 (0.5-21)	104/27	10.5 (3.33-17.5)	18 (10.33-33.5)
Last pediatric visit – last endocrinological visit	50	7.42 (0.42-17)	39/11	18 (10.33-33.5)	25.25 (18.91-37.16)
First pediatric visit – last endocrinological visit	50	14.25 (11.75-21.5)	39/11	10.5 (3.33-17.5)	25.25 (18.91-37.16)

Table 1: Number and sex of patients; ages at the beginning and at the end of the periods analyzed and their duration are reported as median and range