

Intrathyroidal ectopia of thymus in children: frequency, ultrasound, evolution.

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Objective

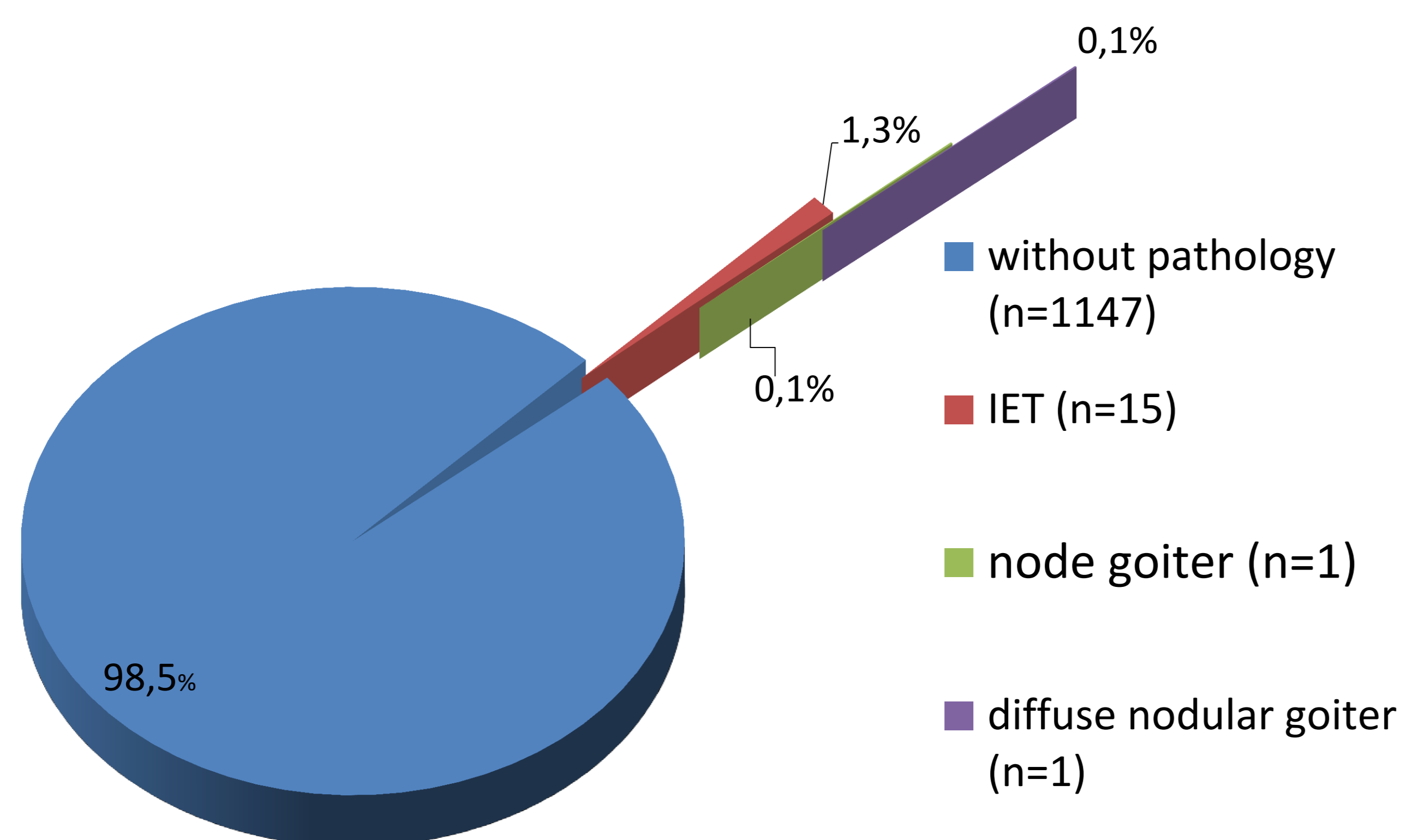
To study the frequency, ultrasound characteristics and the intrathyroidal ectopia of thymus evolution (IET) among children.

Materials and Methods

As part of an epidemiological study (2014-2017), an assessment consists of incidence IET among pre-puberty children, which using ultrasound of 1164 patients (604 girls, 560 boys). As part of a clinical study (2014-2019), the ultrasound characteristics and the evolution of IET in pre-puberty children were counted. The follow-up period ranged 0.75-2.17 years, with an average of 1.57 ± 0.44 years.

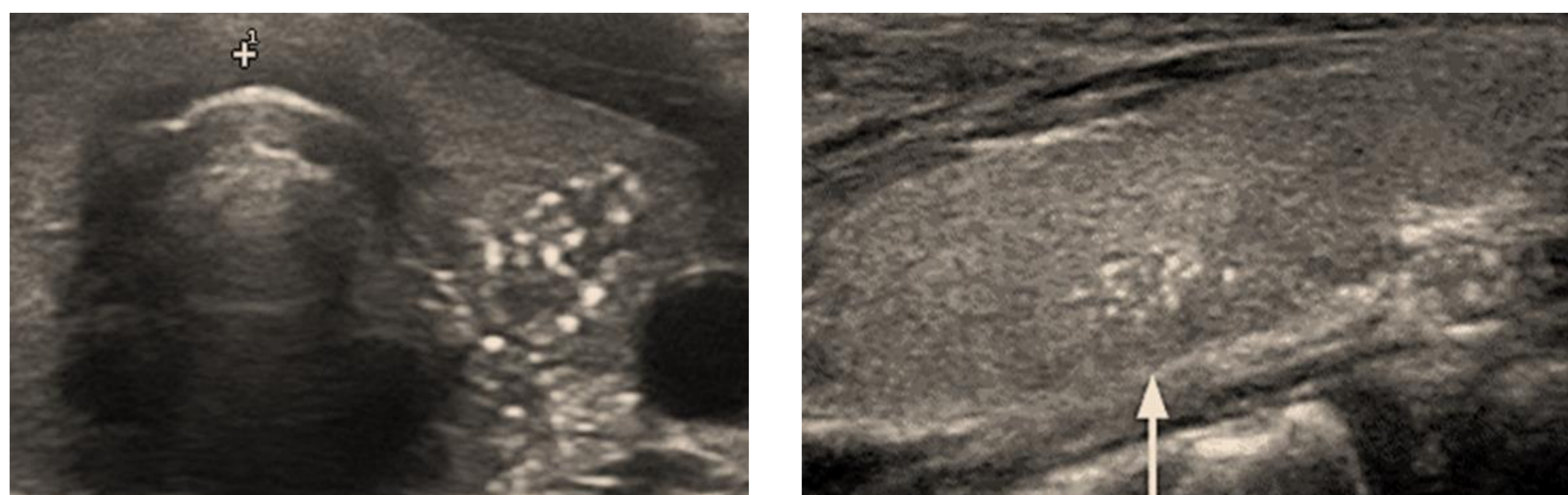
Ultrasound of the thyroid gland (TG) was made on the GE Healthcare LOGIQ P6 (USA) apparatus by using a 9-15 MHz linear sensor.

Results



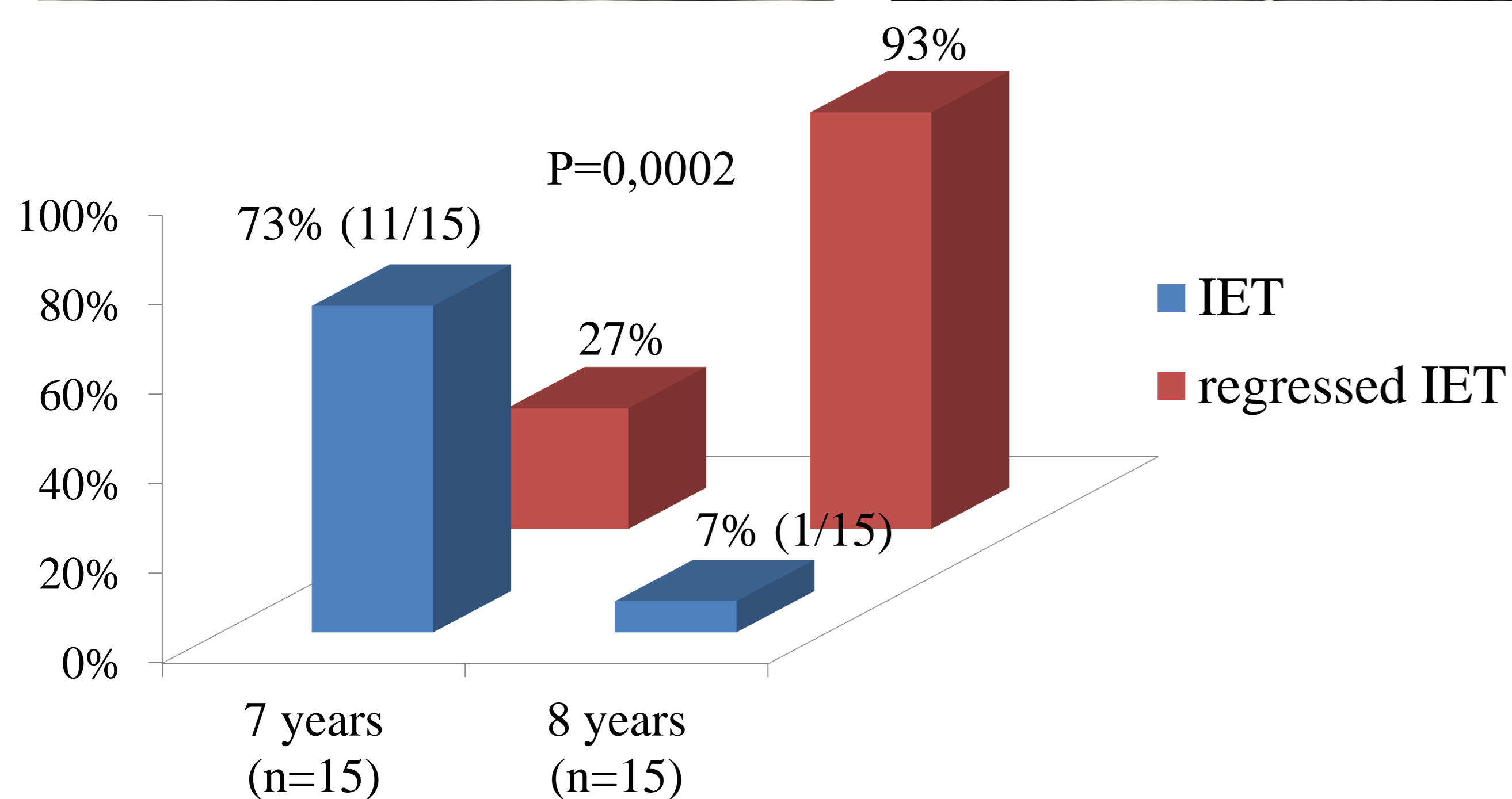
Characteristic of patients with IET (n=15)

Sign	Girls	Boys	P
Number of patients, n	10	5	0,09
Age (M ± SD), years	6,89 ± 0,36	6,86 ± 0,41	0,89
Diameter thymus ectopated into the TG tissue (M ± SD), cm	0,9 ± 0,28	1 ± 0,23	0,5
Location thymus ectopated into the TG tissue in the left lobes, n	5	3	0,26
Location thymus ectopated into the TG tissue in the right lobes, n	5	2	0,18



Intrathyroidal ectopia of thymus

Focal formation localized inside the TG, fusiform, with a wavy contour, without any capsules, hypoechoic structure with multiple small hyperechogenic inclusions, avascular



The vast majority of patients showed that IET persisted at the age of 7 years - in 73% (11/15) of cases, at the age of 8 years - in 7% (1/15) of cases (one boy from the group of frequently ill children).

Evolution

Sign	Regressed IET	No regression of IET	P
N	14	1	0,0002
Boys/girls	4:10	1:0	0,333
Diameter thymus (before/after)	0,95 ± 0,26 cm	0,77 cm/ 0,43 cm	0,53
Observation period	1,54 ± 0,44 years	2 years	0,17
Age at the time of the last TG ultrasound	8,46 ± 0,52 years	8,3 years	0,65

Conclusion

In the structure of focal pathology of TG in children of pre-school age, IET takes the leading place. In the beginning of puberty period, IET can regress. Sonographic characteristics knowledge of IET allows ultrasound to optimize the management tactics of this children group.