Prevalence of additional autoimmune diseases in autoimmune's thyroiditis children and their first- and second-degree relatives: results from a large, single-center study

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OBJECTIVES

Autoimmune's thyroiditis (AT) is the most common cause of thyroid diseases in children and adolescents with a peak in early to mid-puberty (prevalence of 0.3-1.2%). Previous studies showed a high rates of familiarity for autoimmune disease (AD) and co-existing autoimmunity in AT subjects.
Aim of our study is to investigate familiarity for AD and co-existing autoimmunity in a large cohort of pediatric AT patients.

TAB. 1 Characteristics of a large cohort of children affected with AT

Nr. patients	Age at dx	AD	AD in relatives
91	9.74±2.65.	21 (23.1%)	49 (53.8%)

FIG. 1 Prevalence of autoimmune disease in children affected with AT

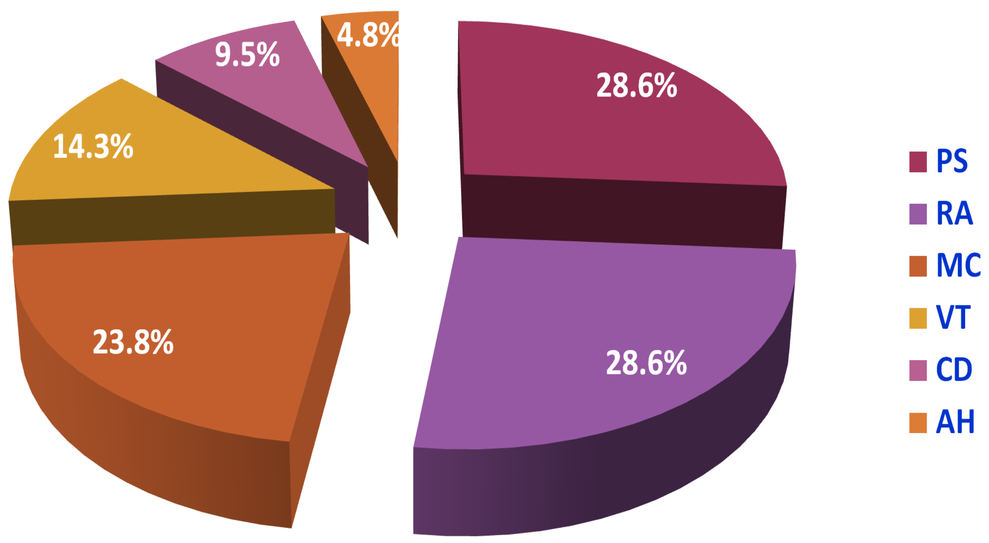
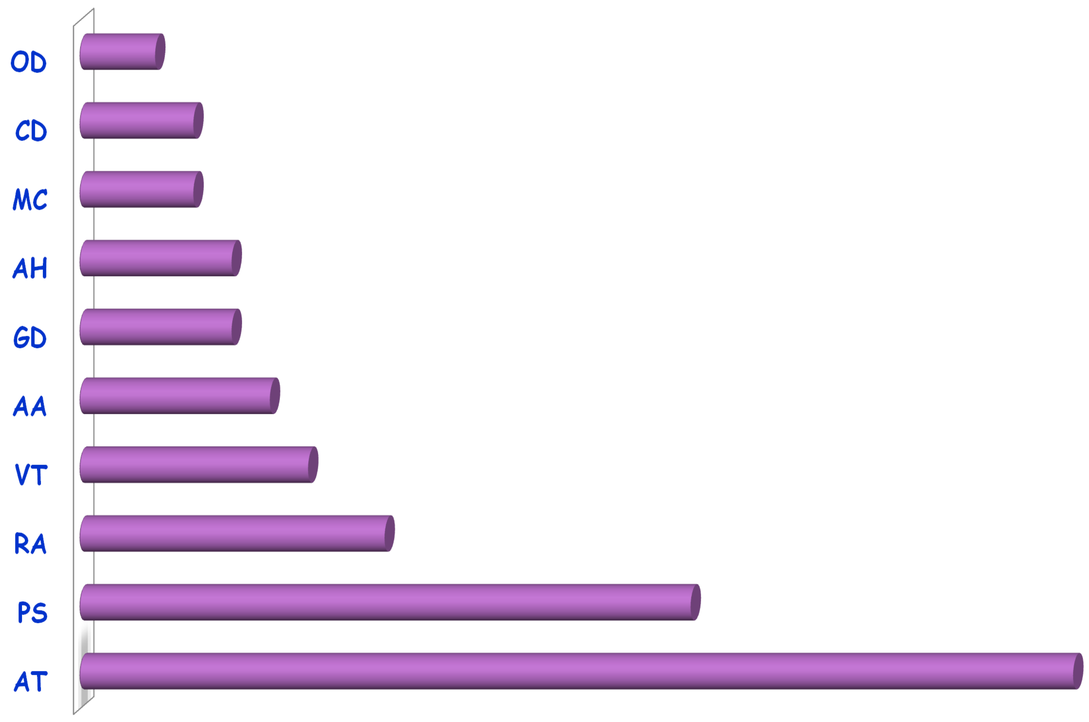


FIG. 2

Prevalence of autoimmune disease in first- and/or second-degree relatives of children affected with AT



	AT	PS	RA	VT	AA	GD	AH	MC	CD	OD
Nr	26	16	8	6	5	4	4	3	3	2
%	53%	32.6%	16.3%	12.2%	10.2%	8.2%	8.2%	6.1%	6.1%	4.1%

METHODS

A cohort of 91 pediatric patients with AT from a single center was retrospective evaluated for:
- the age at onset of AT
- presence of additional autoimmune diseases at diagnosis or during the follow-up
- history of autoimmunity within first and second degrees' line

RESULTS

- Mean age at diagnosis of AT was 9.74±2.65.
- Presence of additional AD occurred in 21 of the 91 AT patients (23.1%) (table 1).
- The prevalence of AD (Figure 1) in our subjects were:
  - 28.6% psoriasis (PS)
  - 28.6% rheumatoid arthritis (RA)
  - 23.8% mucocoutaneous candidiasis (MC)
  - 14.3% vitiligo (VT)
  - 9.5% celiac disease (CD)
  - 4.8% autoimmune hepatitis (AH)
- Fourty-nine patients (53.8%) had first- and/or second-degree relatives affected with AD (Figure 2):
  - 26 (53%) AT
  - 16 (32.6%) psoriasis
  - 8 (16.3%) rheumatoid arthritis,
  - 6 (12.2%) vitiligo,
  - 5 (10.2%) alopecia areata,
  - 4 (8.2%) Graves disease,
  - 4 (8.2%) autoimmune hepatitis,
  - 3 (6.1%) mucocoutaneous candidiasis
  - 3 (6.1%) celiac disease
  - 2 (4.1%) onicodistrophy (OD)

OD is not an AD but is frequently associated with autoimmunity

CONCLUSIONS

Our study documented a high rate of additional AD in children with AT and an increased prevalence of AD in first- and second-degree relatives. Therefore, an accurate follow-up for a prompt diagnosis of any additional autoimmune disease is recommended in children with AT. Moreover, screening of autoimmunity in relatives should also be suggested.