



Prevalence of Celiac Disease (CD) and Autoimmune Thyroid Dysfunction (AITD) in Indian children with Type 1 Diabetes

Archana Dayal Arya, Vasundhara Chugh, Hriday De
Division of Pediatric & Adolescent Endocrinology, Institute of Child Health, Sir Ganga Ram Hospital, New Delhi, India

INTRODUCTION

Celiac disease (CD) and autoimmune thyroid dysfunction (AITD) are common comorbidities in children with type 1 diabetes.

Thyroid-stimulating hormone (TSH) concentrations should be measured at diagnosis when clinically stable or soon after glycemic control has been established. If normal, recheck every 1–2 years or sooner if the patient develops symptoms suggestive of thyroid dysfunction, thyromegaly, an abnormal growth rate, or an unexplained glycemic variation.

Children with type 1 diabetes should be screened for celiac disease soon after the diagnosis of diabetes by measuring IgA tissue transglutaminase antibodies, with documentation of normal total serum IgA levels or, if IgA deficient, IgG tissue transglutaminase antibodies. Screening should be considered at the time of diagnosis and repeated at 2 and then 5 years, or earlier if symptomatic. A small-bowel biopsy in antibody-positive children is recommended to confirm the diagnosis.

OBJECTIVES

To estimate the prevalence of Celiac disease (CD) and autoimmune thyroid dysfunction (AITD) in Indian children with Type 1 Diabetes.

METHODS

The analysis included 177 (83 girls, 94 boys) children and adolescents with a diagnosis of Type 1 Diabetes who were followed up for a duration of more than 2 years at Sir Ganga Ram Hospital, a tertiary care hospital in Northern India.

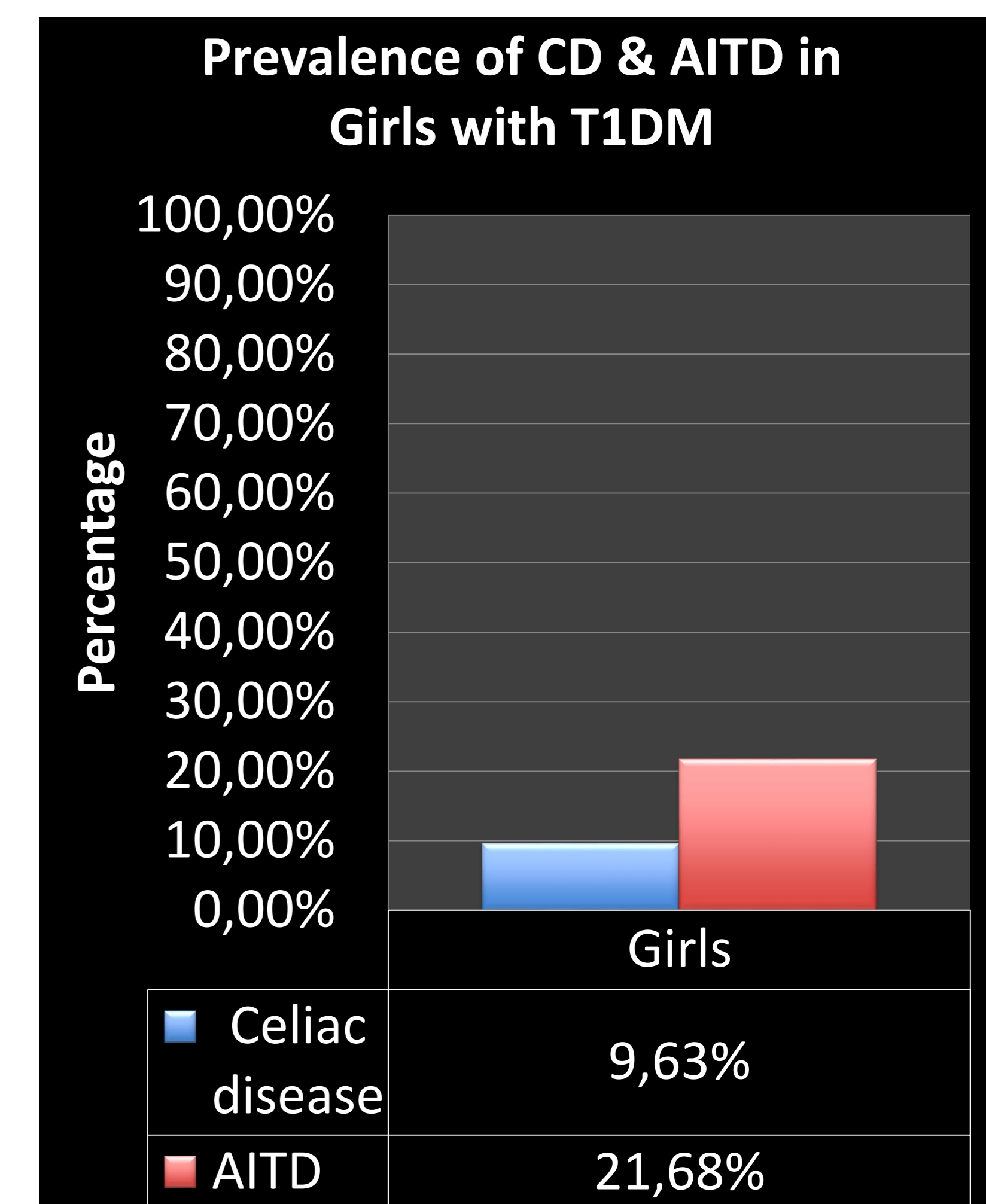
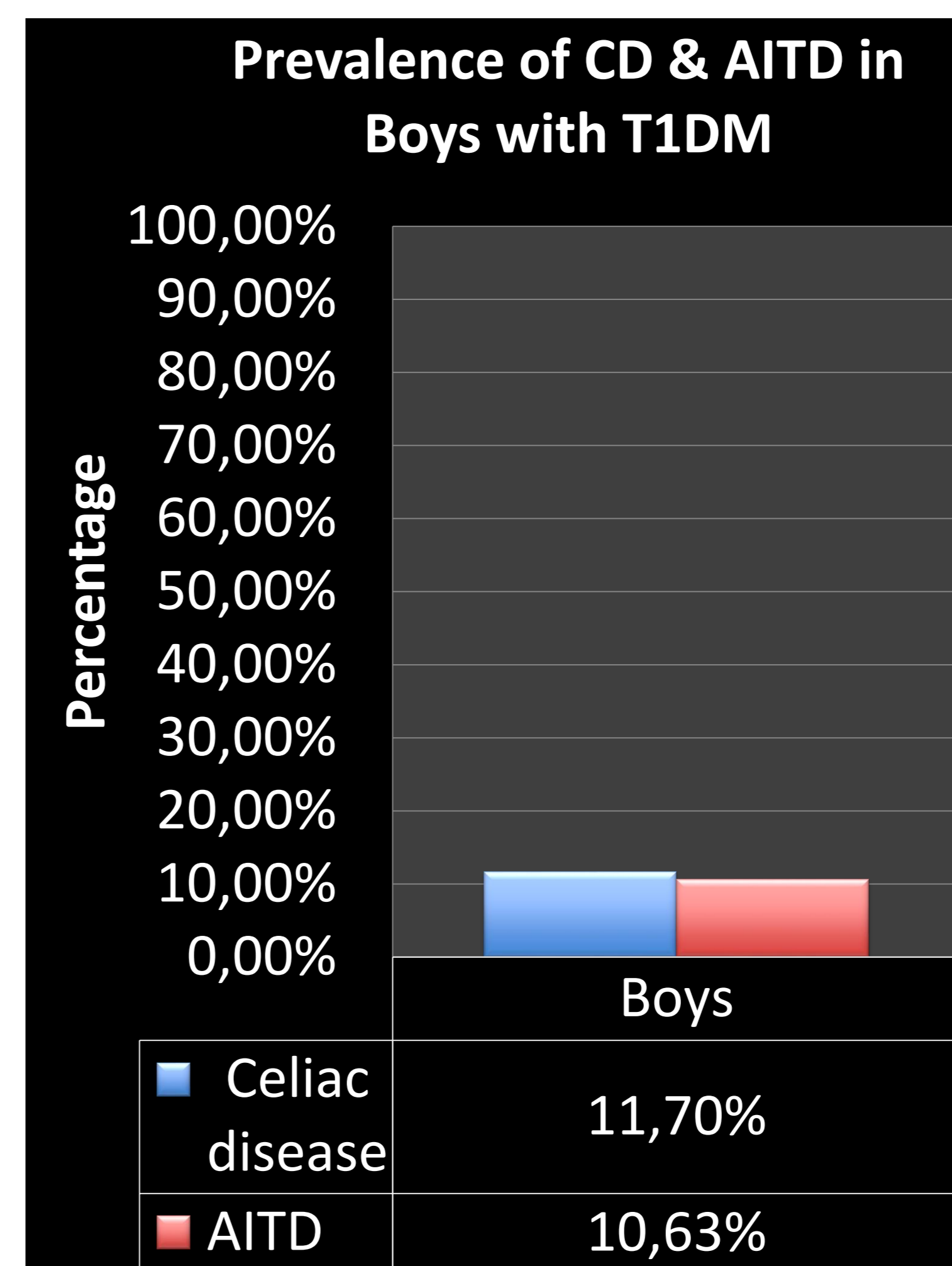
RESULTS

Biopsy-confirmed CD was present in 18 (10.16%) children. Celiac disease was found in 11/94 (11.7%) boys and 8/83 (9.63%) girls.

Duration of Diabetes at the time of CD diagnosis	Number of children with biopsy confirmed CD (percentage)
<2years	13 (72.22%)
2-5years	4 (21.05%)
>5years	2 (10.52%)

We found 28 (15.81%) cases of autoimmune thyroid dysfunction, among whom 27 (15.25%) had hypothyroidism and 1 had hyperthyroidism. AITD was present in 18/83 (21.68%) girls and 10/94 (10.63%) boys.

Duration of Diabetes at the time of diagnosis of AITD	Number of children with AITD (percentage)
<2years	17 (60.71%)
2-5years	4 (14.28%)
>5years	3 (10.71%)



CONCLUSION

These findings support routine screening for CD & AITD in patients with Type 1 diabetes, particularly within the first 2 years after the diagnosis of diabetes. The prevalence estimate for CD is slightly higher in our study compared with a review conducted over three continents where an overall prevalence of 3.5% (1.9-7.7%) was reported. The difference in the prevalence could be because of the smaller number of children included in the study.

Bibliography

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