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acta medica LETTER TO THE EDITOR

Letter to editor: Presentation and clinical outcome of adolescents with graves' disease

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Dear Editor,

We read with interest the recent study evaluating the clinical features, treatment approaches and remission rates in adolescents diagnosed with Graves' disease [GD] [1]. We congratulate the authors for sharing their experience with this rare condition, the clinical course of which can vary from patient to patient. The data on long-term antithyroid drug (ATD) treatment, remission rates and the need for definitive treatment provide valuable insights into the management of paediatric GD.

As the average follow-up period was only 13 months and remission could only be assessed in the eight patients who successfully completed ATD treatment, the reported remission rate of 15.7 per cent should be interpreted with caution. The low remission rate may reflect the limited follow-up period rather than a more aggressive disease course. A meta-analysis comprising 20 studies involving paediatric and adolescent patients supports this view: remission rates were found to be 15.5 per cent in the second year of ATD treatment, 24.1 per cent in the fourth year, and 33.0 per cent after the sixth year or later. Differences in treatment duration and follow-up periods were identified as the main causes of heterogeneity between the studies [2]. Continued follow-up of the current cohort will help to clarify whether the observed rate truly reflects the severity of the disease or is largely a result of the short observation period.

The sample size is limited for making statistical inferences. However, the association between thyroid volume SDS and recurrence is consistent with the findings of previous studies. It has been consistently reported that a smaller goitre volume and lower TRAb levels at the time of diagnosis are associated with a more favourable prognosis, whilst the presence of a goitre is an independent predictor of recurrence [3,4]. Furthermore, a more detailed evaluation of serial TRAb measurements during the follow-up period could have contributed to a better understanding of the factors influencing remission and recurrence in this cohort.

Notably, one in four patients in whom a thyroid nodule was detected was diagnosed with papillary thyroid carcinoma. The risk of malignancy in thyroid nodules in the paediatric age group is approximately five times higher than in adults [5]. However, differentiated thyroid carcinoma developing against a background of Graves' disease is quite rare and may present a diagnostic challenge for clinicians. As the diffuse thyroid hyperplasia and increased vascularisation characteristic of Graves' disease may make it difficult to detect malignant nodules on ultrasound, it is of great importance to maintain careful and systematic ultrasound monitoring in these patients.

In conclusion, this valuable case series clearly demonstrates that Graves' disease in adolescents requires long-term follow-up, that remission rates

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– while lower than those observed in adults – may improve with extended treatment duration, and that concomitant thyroid nodules warrant careful evaluation. We believe that larger, long-term, multicenter studies will contribute to a better understanding of the factors predictive of remission.

Author contributions

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Conflict of interest

The authors declare that this study was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Generative AI statement

The authors declare that during the preparation of this study, the following AI-assisted technology was used: ChatGPT-5 on 19/07/2026. Extent of Use: The content and interpretations of this study were developed by us; artificial intelligence (ChatGPT) was utilized solely for language translation, as well as to ensure academic English standards and fluency of expression. The scientific framework, analysis, and conclusions of the text are entirely the product of my own work and academic assessment. The authors confirm that they have critically reviewed and edited any AI-generated content and take full responsibility for the integrity, accuracy, and originality of the publication. The authors certify that the original human contribution is maintained and that AI-assisted tools are not listed or cited as authors.

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