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ORIGINAL ARTICLE

Functional gastrointestinal disorders are highly prevalent in children with short stature and linked to reduced growth velocity

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Abstract

Objectives

This study aimed to investigate the prevalence of functional gastrointestinal disorders (FGIDs) in children with short stature and their association with growth status.

Methods

Confirmed children with short stature without treatment were consecutively enrolled in a tertiary hospital from November 1 2020 to June 30 2021, and from March 1 2023 to April 30 2023. All participants completed an FGIDs questionnaire based on the Rome IV pediatric diagnostic criteria. Anthropometrics, demographic, and laboratory data were collected. The participants were divided into two groups according to whether FGIDs were combined, and the differences between the two groups were analyzed.

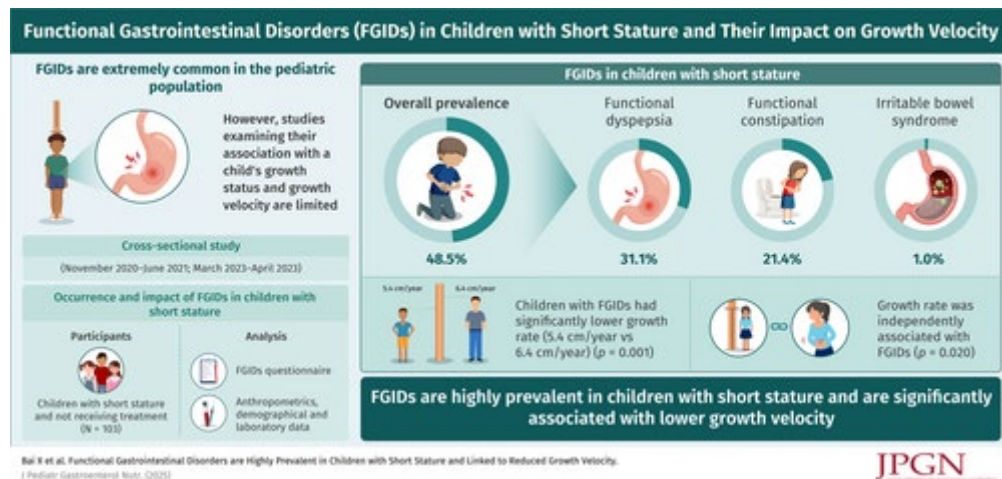
Results

One hundred three children with short stature were included, and the overall prevalence of FGIDs was 48.5% ($n = 50$). The prevalence of functional dyspepsia (FD), functional constipation (FC), and irritable bowel syndrome was 31.1%, 21.4%, and 1.0%, respectively. Children with FGIDs showed significantly lower growth velocity in comparison to those without FGIDs ($p = 0.001$). Multivariable linear regression analysis showed an independent association between FGIDs and growth velocity ($\beta = -0.97$, $p = 0.020$).

Conclusion

Children with short stature had a high prevalence of FGIDs. The children with FGIDs, especially FD and FC, presented significantly lower growth velocity. Impact of FGIDs on growth velocity should be considered in children with short stature.

Graphical Abstract



CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.