

# Impact of Pediatric Inflammatory Bowel Disease on Linear Growth: Data from a National Cohort Study in Saudi Arabia

Sir,

I refer to the interesting study published in the Saudi Journal of Gastroenterology March–April 2016 issue.<sup>[1]</sup> There are three aspects that are worth commenting upon.

First, the authors did well in evaluating the impact of pediatric inflammatory bowel (PIBD) disease on linear growth. The study had an important methodological limitation, which might affect the accuracy of the study results. The authors employed the World Health Organization's (WHO) 2006 growth standards and reference standard deviation (SD) charts as reference. The authors did well in elucidating the reasons behind referring to the WHO standards, namely the unavailability of SD reference for Saudi children at the time of the study as well as using the WHO international reference facilitates comparison with other studies from other countries.<sup>[1]</sup> It is worth mentioning that the WHO standards are the first globally representative growth standards. They describe the growth of children worldwide who are living in favorable circumstances. Comparison with other charts revealed important differences with implications for child health monitoring. Comparing the use of the WHO standards to the use of country-specific growth references suggested that the latter might describe the growth of children more faithfully than the WHO standards.<sup>[2]</sup> To my knowledge, the Lambda–Mu–Sigma (LMS) methodology has been successfully employed to calculate the L, M, and S parameters of percentiles (from 3<sup>rd</sup> to 97<sup>th</sup>) for various growth parameters for boys and girls from birth up to 60 months, and new Saudi growth standards have been recently launched to be used by clinicians and researchers for assessing the growth of Saudi preschool children.<sup>[3]</sup> Extension of these charts to include older children and adolescents is solicited. I presume that conducting a large prospective multicenter study employing the new Saudi standards might better elucidate the prevalence of linear growth impairment in Saudi pediatric population, including those with IBD.

Second, I do agree with the authors that prospective studies are needed to define the impact of IBD on final adult stature as, interestingly, the available data pointed out that most pediatric patients with IBD attained adult height

within normal time for the population.<sup>[4]</sup> Therefore, early detection of growth faltering is crucial to meticulous PIBD management.

Third, the authors mentioned that the etiology of growth impairment in children and adolescents with IBD is multifactorial. Chronic malnutrition resulting from inadequate caloric intake as a result of anorexia and abdominal pain, chronic inflammation, effect of proinflammatory cytokines, disturbed insulin-like growth factors, and drug therapy are the main contributing factors.<sup>[1]</sup> Apart from the aforementioned factors, genetic influences due to stature-associated and possibly Crohn disease (CD) risk alleles might predispose CD patients to alterations in linear growth.<sup>[5]</sup>

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### Conflicts of interest

There are no conflicts of interest.

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