

Short Stature

Is It a Psychosocial Problem and Does Changing Height Matter?



David E. Sandberg, PhD*, Melissa Gardner, MA

KEYWORDS

• Short stature • Psychosocial adaptation • Growth hormone • Height

KEY POINTS

- Beliefs about the psychosocial liabilities associated with short stature and the ability of recombinant human growth hormone (rhGH)-mediated increases in height to remedy quality-of-life problems are abundant; however, research provides little support for either.
- Health care providers must work with families to fully examine and weigh potential risks and benefits of using rhGH to address the perceived associations between short stature and psychosocial problems.
- Recent findings on the long-term safety of rhGH treatment, particularly those of the Safety and Appropriateness of Growth hormone treatments in Europe (SAGhE) study, although controversial, underscore the importance of defining safety for families beyond the period of active treatment.
- The authors recommend conducting a psychosocial screening assessment, in addition to physical, laboratory, and radiological evaluations, to learn about (and discuss) the factors parents and patients are using to make decisions, and working with them to evaluate the full range of strategies available to address their concerns about the child's height, including endocrinologic, psychological, educational, and others, as applicable.

INTRODUCTION

Short stature (SS) is conventionally defined as height 2 standard deviations (SDs) (approximately the second percentile) or more below the mean for age- and gender-specific norms¹; however, growth charts that adopt the fifth percentile (−1.6 SDs) to demarcate the lower limit of the normal range remain commonly available.² Although SS frequently represents healthy variation in height, it may reflect

Disclosure: The authors have no disclosures.

The authors contributed equally to this article.

Child Health Evaluation & Research (CHEAR) Unit, Division of Child Behavioral Health, Department of Pediatrics, University of Michigan, 300 North Ingalls Street, Ann Arbor, MI 48109, USA

* Corresponding author. University of Michigan, 300 North Ingalls Street, Room 6C23, Ann Arbor, MI 48109-5456.

E-mail address: dsandber@med.umich.edu

Pediatr Clin N Am 62 (2015) 963–982
<http://dx.doi.org/10.1016/j.pcl.2015.04.009>

pediatric.theclinics.com

0031-3955/15/\$ – see front matter © 2015 Elsevier Inc. All rights reserved.

consequences of a wide range of pathologic states, including growth hormone (GH) deficiency (GHD). Even without evidence of pathologic cause, SS is considered by some to constitute a disability requiring medical intervention: recombinant human GH (rhGH) therapy, first introduced in 1985, has been approved by the US Food and Drug Administration (FDA) to accelerate growth and increase adult height in several conditions not characteristically associated with GHD, including chronic renal insufficiency (1992),³ Turner syndrome (TS) (1996),⁴ Prader-Willi syndrome (2000),⁵ children born small for gestational age (SGA) (2001),⁶ idiopathic SS (ISS) (2003),^{7,8} SHOX deficiency (2006),⁹ and Noonan syndrome (2007).¹⁰

Proponents of rhGH treatment in non-GHD children assert height, as an isolated physical characteristic, is associated with psychosocial morbidity and a justification for treatment. Others note controversy about such treatment¹¹ and question the evidence underpinning this quality-of-life rationale.^{12,13} The objective of this article is to address the following questions: (1) Is SS an obstacle to positive psychosocial adjustment? and (2) Does increasing height through rhGH treatment make a difference to the person's psychosocial adaptation and quality of life?

This article begins with case examples, explores the beliefs, stereotypes, and assumptions regarding SS as well as the status of research evidence, and concludes with recommendations.

Cases and Clinical Management Considerations

Case 1

A 9-year-old boy growing below the first percentile for height was referred for ongoing management of SS attributable to being born small for gestational age (SGA) following a move from a different state where he recently started rhGH treatment. A routine psychosocial screening during the initial growth evaluation visit collected information from both parents and child. The screening revealed the boy is teased, exhibits behavioral problems, and does poorly at school. History, physical examination, and review of earlier testing confirmed the SGA diagnosis; the psychosocial evaluation suggested a learning disability and the presence of attention deficit hyperactivity disorder (ADHD) symptoms.^{14,15}

Case 2

A 10-year-old boy, growing steadily at the third percentile for height, was referred to pediatric endocrinology by his pediatrician to evaluate unexplained SS. No current concerns about his height were noted, but his parents wondered if SS will make their son's life difficult in the future. History, physical examination, and laboratory results led to a diagnosis of ISS. Psychosocial screening findings corroborated a positive psychosocial adaptation.

Case 3

A 10-year-old girl growing at the fifth percentile for height was referred to pediatric endocrinology by her family doctor for a growth evaluation. Referral paperwork noted recurrent otitis media and possible developmental delay that has not been formally evaluated. At clinic, her parents reported she is doing poorly at school, where she is teased by children who call her "shrimptard" (a portmanteau of 2 popular insults at her school). Her parents hold SS responsible for the teasing, and the teasing responsible for her academic difficulties; they reason rhGH will increase their daughter's height, eliminate teasing, and allow her to have friends and to succeed at school. Physical examination revealed cubitus valgus, short neck with a slight webbed appearance, low-set ears, and a low posterior hairline; genetics workup indicated a 45,X/46,XX karyotype. She was diagnosed with TS.

Download English Version:

<https://daneshyari.com/en/article/4173850>

Download Persian Version:

<https://daneshyari.com/article/4173850>

[Daneshyari.com](https://daneshyari.com)