Short Stature, Shots and Shortcomings

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Received: 19 May 2010 / Accepted: 14 June 2010 / Published online: 26 August 2010
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Sir,

A 5-year-old developmentally normal boy presented to the Emergency Room with respiratory distress for 2 days. He had short stature, hypertension and pallor. Investigations revealed highly elevated Serum creatinine, metabolic acidosis and hyperkalemia. A diagnosis of Chronic Renal Failure (CRF) was made and hemodialysis initiated. This boy had been under the care of an endocrinologist in another hospital and had received five doses of recombinant human Growth Hormone (rhGH) injections at monthly intervals for short stature. Surprisingly, his blood pressure had never been checked earlier while a battery of costly investigations for short stature had been done. A good history and thorough clinical examination including blood pressure measurement could have led to an early diagnosis and appropriate timely intervention in this child.

Children with CRF are at high risk for growth retardation and decreased adult height. Therapy with recombinant human growth hormone increases the growth rate and improves the height in prepubertal children with CRF. However, whether the final height is improved by this treatment is unknown [1]. In the absence of evidence for individual or societal benefit, pharmacologic rhGH therapy for normal short stature does not appear cost beneficial. It has been estimated that the average cost of rhGH per inch of height attainment is US \$52 000 [2]. Apart from the drug

cost, other issues like costs for medical visits, IGF-I monitoring, parental work time lost, school absence, and injection supplies cannot be ignored. Although rhGH treated individuals may be taller than nontreated individuals, they are still relatively short compared with peers of normal height. Therefore, whether the small expected gain in height is substantial enough to merit frequent injections for a number of years in children who do not have a disease is not clear. Additionally, there is no evidence that rhGH treatment improves health related quality of life or psychological adaptation [3]. A child with CRF can present as short stature in an endocrinology clinic. Hence, non-endocrinological causes should also be considered while evaluating a child with short stature. Blood pressure measurement and estimation of blood urea and serum creatinine should be done routinely in all children with short stature. With growing sophistication of technology, the superspecialists have become increasingly dependent on technology / instruments to make a diagnosis. This has, unfortunately, led to clinical medicine taking a back seat. This has also made therapy more expensive, more tedious and more inhuman.

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