

A Preliminary Report on the Role of Somatostatin Analog (SMS 201-995) in the Management of Children with Tall Stature

This paper presents preliminary results obtained in seven children with excessive height and height velocity leading to a height prediction (TW2 method) >180 cm in girls (n=5) and >200 cm in boys (n = 2) treated for more than 6 months with one daily injection of the long-acting somatostatin analog SMS 201-995. Two of the participants were prepubertal, two at pubertal stage 2-3, and three at stage 4.

Growth hormone (GH) secretion, measured as the sum of the amplitudes of the GH pulses during 24 hours, deeply decreased after the first dose of the analog and was still low following 1 year of therapy in patients who were re-tested. No change occurred in serum thyroxine levels or in glucose and glycosylated hemoglobin A1C values. A small, nonsignificant decrease of serum insulin values was observed.

Mean growth rate decreased significantly from 8.3 (range, 5.5-12.2) to 3.0 (range, 0.2-4.5)

cm/yr at the end of 6 months of treatment. It remained <5 cm/yr after 1 year in the four patients who were still receiving therapy. The effect of the treatment on predictable adult height was measurable in five patients, with a reduction of -2.1 to -6.3 cm in three, and no reduction in two (-1.1 and +0.7 cm), although this predicted height reduction was only borderline significant.

The authors point out, from this preliminary work, that SMS 201-995 effectively reduced the secretion of GH, with no important side effects, during treatment for 6 months to 1 year, but that it also had no constant or significant effects on the predictable adult height. They suggest that SMS 201-995 may have a role in the management of excessively tall children, but the optimum mode and timing for its use remain to be established.

Hindmarsh PC, Pringle PJ, DiSilvio L, Brook CGD. *Clin Endocrinol* 1990;32:83-91.

Editor's comment—*Avoiding excessive adult height remains a challenge, as predictions and results for the treatments that have been proposed remain uncertain.*

This new approach deserves consideration, mainly because no harmful effects have been observed and the drop in GH secretion has been well documented. Everyone will agree with the authors that the data are preliminary and allow no more than continuing clinical research with somatostatin analogs as a possible treatment for extremely tall children.

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