

Physiological Growth Hormone Secretion During the Recovery from Psychosocial Dwarfism: A Case Report

Stanhope and colleagues reported on 18-hour growth hormone (GH) profiles, sampled every 15 minutes from 1300 hours to 0800 hours, in a 6-year, 4-month-old boy with psychosocial dwarfism. On admission to the hospital, this boy had a height SD score of -3.3 and an inadequate GH response to insulin hypoglycemia (maximum, $1.8 \mu\text{g/L}$). Three GH profiles were performed: on admission, after 6 days, and at 18 days. During the initial profile, peak GH was greater during the day than overnight. After admission, there was a progressive increase in GH secretion, with maximum GH peaks occurring during early sleep. The increase in GH secretion was achieved by an increase in pulse amplitude without alteration of pulse frequency. Peak GH secretion during sleep rose from $8.2 \mu\text{g/L}$ on admission to 17.5

$\mu\text{g/L}$ on day 6, and to $25.0 \mu\text{g/L}$ on day 18. The pattern of GH pulsatility and peak GH achieved at the onset of sleep was consistent with data previously collected in normal children.

Stanhope R, Adlard P, Hamill G, et al. *Clin Endocrinol* 1988;28:335-339.

Editor's comment—*Pharmacologic tests of growth hormone (GH)*

secretion have demonstrated that the GH deficiency in psychosocial dwarfism is reversible. The present report demonstrates the pattern of that reversibility and corroborates the findings of earlier studies with pharmacologic stimuli. Although this is only a single case, the findings are very important. It would be interesting to study GH release in response to growth hormone-releasing hormone in these children.

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