

corticotropin stimulation without simultaneously incurring the deleterious effect on growth of glucocorticoid overtreatment. This study clearly points out that adult stature in most children with CAH is within 1 SD of the genetic target, with at least one third of the patients achieving their target height. This study reassures pediatric endocrinologists that adequate treatment of patients diagnosed early might lead to achievement of an adult height appropriate for the family. However, there might be opportunities for advances in clinical management combined with diagnostic precision by the molecular genetic characterization of these patients, ie, the CYP21 gene. The heterogeneity of the disease and/or the concept that all patients with CAH need treatment with mineralocorticoid replacement, regardless of their salt-wasting status, needs to be considered to improve the outcome. However, the most practical item is for us to devise ways to

improve compliance with the treatment over prolonged periods. For example, it was recently shown that treatment with dexamethasone in a convenient once-a-day dosage may be easier for the patients and yet allow them to achieve a normal growth (see the next abstract for details).

Fima Lifshitz, MD

**3rd Editor's comment:** The reader's attention is redirected to Dr. Clarke's comments above pertaining to BMI, increased body weight, and adult height. After rereading, proceed to an abstract in this issue entitled, "Body Mass Index in Childhood and Its Association With Height Gain, Timing of Puberty, and Final Height."

Robert M. Blizzard, MD

### Dexamethasone Treatment of Virilizing Congenital Adrenal Hyperplasia (VCAH): The Ability to Achieve Normal Growth

The authors summarize their 2 decades of experience with the long-term, routine use of dexamethasone (DEX) in the treatment of children with 21-hydroxylase- and 11-hydroxylase-deficient CAH (N=26 [23 with salt loss] and 5, respectively). Administration of DEX began as early as birth and continued for an average of 7 to 8 years and for as long as 20 years. DEX elixir was administered once daily (0.1 mg/mL) at a mean dose of 0.27 mg/m<sup>2</sup>/d (range, 0.24 to 0.33 mg/m<sup>2</sup>/d). Fludrocortisone was given as needed. The hypothalamic-pituitary-adrenal axis was effectively suppressed with this regimen.

As the authors point out, a comparison of the effects of DEX to those of another group of children with CAH treated more conventionally would have been useful. It would seem reasonable to undertake such a comparative long-term trial, if possible. Assuming these data are confirmed, DEX would seem preferable to the use of androgen receptor blockers and aromatase inhibitors in the management of children with CAH in order to keep treatment as uncomplicated as possible.

Allen W. Root, MD

In the 19 subjects whose bone age was within 2 years of chronologic age at the initiation of DEX, there were comparable increases in chronologic, height, and bone ages in both males and females. Achieved or predicted adult heights were similar to estimated target heights (see Figure).

In 7 children in whom bone ages were more than 2 years in advance of chronologic age when treatment with DEX was begun, linear growth relative to advancement in bone age improved but did not achieve unity. The authors conclude that DEX is an effective and safe glucocorticoid for the management of CAH in childhood.

Rivkees SA, Crawford JD. *Pediatrics* 2000;106:767-773.

**Editor's comment:** Management of infants and children with CAH remains a challenging task primarily because of the need for rigid adherence to the usual therapeutic program—particularly the administration of cortisol at close to 8-hour intervals. While achievable in infancy and early childhood, strict compliance becomes more difficult as the patients' schooling and other activities increase. Thus, the report by Drs. Rivkees and Crawford is welcome and useful. Many of us have been reluctant to utilize DEX in infants and children with CAH, although it is effective in older adolescents and young adults, because of its evident biopotency. Based on their experience, the authors calculated that 1 mg of DEX is 70-fold more effective than 1 mg of cortisol in suppressing adrenal function, rather than the 30-fold potency stated by the manufacturers.

