

Effects of luteinizing hormone-releasing hormone analog-induced pubertal delay in growth hormone (GH)-deficient children treated with GH: Preliminary results

Cassorla, Fernando

Mericq, Verónica

Eggers, Martha

Avila, Alejandra

García, Cristian

Fuentes, Ariel

Rose, Susan R.

Cutler, Gordon B.

To study the effect of delaying epiphyseal fusion on the growth of GH- deficient children, we studied 14 pubertal, treatment naive. GH-deficient patients (6 girls and 8 boys) in a prospective, randomized, placebo- controlled trial. Chronological age was 14.5 ± 0.5 yr, and bone age was 11.6 ± 0.3 yr (mean \pm SEM) at the beginning of the study. Patients were assigned randomly to receive GH and LH-releasing hormone (LHRH) analog (n = 8) or GH and placebo (n = 6) during 3 yr, with planned continuation of GH treatment until epiphyseal fusion. Patients were measured with a stadiometer and had serum LHRH tests, serum testosterone (boys), serum estradiol (girls), and bone age performed every 6 months. Patients treated with GH and LHRH analog showed a clear suppression of their pituitary-gonadal axis and a marked delay in bone age progression. We observed a greater gain in height prediction in these patients than in the patients treated with GH and placebo after 3 yr of treatment (mean \pm SEM, 14