Overestimation of final height prediction in patients with classical congenital adrenal hyperplasia using the Bayley and Pinneau method.

A typical growth pattern with decreased pubertal growth spurt has been identified in patients with classical congenital adrenal hyperplasia (CAH). To evaluate the accuracy of final height predictions in patients with CAH using the Bayley and Pinneau (B&P) method. Using growth and final height data of 92 patients (57 F/35 M) with CAH due to 21-hydroxylase deficiency (38 SV/54 SW), final height predictions with the B&P method were compared to actual final heights. In females, mean final height was 159.9 +/- 5.3 cm (-1.0 +/- 0.7 SDS) compared to predicted mean final height of 167.9 +/- 10.7 cm (+0.5 +/- 1.7 SDS), p< 0.001, overestimation 7.3 +/- 9.5 cm. In males, mean final height was 170.1 +/- 6 cm (-1.2 +/- 0.8 SDS) compared to predicted mean final height of 185.6 +/- 13.4 cm (+1.2 +/- 1.9 SDS), p< 0.001, overestimation 13.9 +/- 10.8 cm. In classical CAH, final height prediction using the B&P method results in significant overestimation of final height.