

GH-IGF axis during catch up growth in small for gestational age (SGA) infants

García, Hernán

Henriquez, Cecilia

Ugarte, Francisca

Fernandez, Elizabeth

Beas, Francisco

Iñiguez, Germán

Boric, Angélica

Pizarro, Fernando

Cassorla, Fernando

The hormonal profile in 47 small for gestational age (SGA) term newborns during their first year of life was studied. The newborns had a mean birth weight of 2290 ± 230 g and a length of 45.5 ± 2.0 cm, and they were followed up every month. Serum IGF-I, IGF-II, and urinary growth hormone (u-GH) concentrations were measured at 3 days of age and every 3 months during one year. Serum IGFBP-3 levels were measured at 3 and 6 months of age. Catch up growth (CUG) was defined as an increase in length z score greater than 1 SD between birth and 6 months of age. According to this definition, 27 infants (57.4%) experienced CUG. We compared the hormonal profile of the infants who demonstrated evidence of CUG [CUG(+)] with those who did not [CUG(-)]. Serum IGF-II levels were significantly higher in CUG(+) infants compared to CUG(-) infants at 3 months of age. We did not find any differences in serum IGF-I, IGFBP-3 and urinary GH between CUG(+) and CUG(-) infants at any time during the study.