

Gonadal function in low birth weight infants: A pilot study

Sir-Petermann, Teresa

Hitchsfeld, Catalina

Codner, Ethel

Maliqueo, Manuel

Iñiguez, Germán

Echiburú, Bárbara

Sánchez, Fernando

Crisosto, Nicolas

Cassorla, Fernando

Objective: To evaluate gonadal function and anti-Müllerian hormone (AMH) serum concentrations during the first 3 months of life in low birth weight (low-BW) and normal birth weight (normal-BW) infants. **Infants:** Twenty low-BW and 29 normal-BW infants were studied. **Methods:** The pituitary-gonadal axis was evaluated by a GnRH agonist test (leuprolide acetate, 10 µg/kg s.c.). Circulating concentrations of gonadotropins, steroid hormones, sex hormone binding globulin, inhibin B and AMH were determined by specific assays. **Results:** In both sexes, basal concentrations of gonadotropins, sex steroids, sex hormone binding globulin and inhibin B were similar between low-BW and normal-BW infants. However, AMH concentrations were significantly higher in low-BW compared to normal-BW females ($p = 0.004$). This was not observed in males. After leuprolide administration, estradiol concentrations were higher in low-BW compared to normal-BW females ($p = 0.043$). In males, post-stimulated sex steroid concentr