

P7. Small leucine-rich proteoglycans (slrps) on the epiphyseal plate of the female mice metoclopramide-induced hiperprolactnemia and their offspring

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CONTEXT: Bone formation requires recruitment, proliferation, and osteoprogenitor cell differentiation. **OBJECTIVE:** To evaluate the effects of hyperprolactinemia induced by metoclopramide on the epiphyseal plate of female mice and their offspring after breastfeeding. **METHODS:** 20 female/groups: control group (Non-pregnant Ctr): 0.2 mL of saline (vehicle) and the experimental group (Non-pregnant HPrl): 200 µg/day of metoclopramide, dissolved in vehicle. After 50 days, 10 females of each group were placed for mating with males and continued the treatment. The females non-pregnant were euthanasia on 50th day, adult non-pregnant and offsprings after 10th day of breastfeeding. Therefore, there are 8 groups in total: adult control (GI), adult treated (GII), progenitress control (GIII), progenitress treated (GIV), male mice and female mice offsprings of GIII (GV and GVI, respectively), male mice and female mice offsprings of GIV (GVII and GVIII, respectively). After the period of breastfeeding, the animals (progenitress and offsprings) were sacrificed after deep anesthesia and withdrew from the right knee in order to analyze the cartilaginous and bone tissue. The knee was fixed in 10% formaldehyde, decalcification and then subjected to histological processing for inclusion in paraffin. Slides were stained by HE for morphometric analysis. ELISA and RIA assessed the hormonal levels. The in epiphyseal plate was processed for gene expression by RT-qPCR. The results subjected to statistical test ($p < 0.05$). **RESULTS:** female adult and female offspring showed an increase in the thickness of the zone of rest and the male offspring had increased in the hypertrophic zone, and alteration in the extracellular matrix. **CONCLUSION:** the results suggest that hyperprolactinemia can change the thickness of articular cartilage in female adult and female offspring. Still, in male offspring can affect the epiphyseal growth of the bone. Alteration on the extracellular matrix components.

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