



Resumption of reproductive activity in physiologic and pathologic puerperium in the mare

Objective: To evaluate how the puerperium could influence the resumption of ovarian activity and hormones concentrations after foaling

Materials and Methods: Mares hospitalized at the Equine Perinatology and Reproduction Unit for attending parturition and after parturition for foal's intensive care were included and divided into 4 Groups: Control Group (CG), Pathologic Puerperium Group (PPG), Sick Foal and Physiologic Puerperium Group (SPG), Sick Foal and Pathologic Puerperium Group (SPPG). Mares underwent transrectal ultrasound evaluation every other day after foaling/hospitalization (TPP/TH) until a dominant follicle was detected (TF), and then every day until ovulation (TO). At TPP/TH, TF and TO, a blood sample was collected in lithium heparin and stored at -80° to evaluate FSH, LH, estradiol- 17β , PGFM, P4, IGFs and prolactin concentrations with ELISA or RIA.

Results: During the current foaling season, 19 mares were included: 12 in the CG, 3 in SPPG, 2 in SPG, 2 in PPG.

Conclusions: The resumption of ovarian activity was not influenced by puerperium or by the presence of a sick foal. All the mares ovulated within 11-14 days post partum or had at least a dominant follicle ($>28\text{mm}$) until discharge (5-10 days post partum). Only one mare with dystocia and C-section had follicles $<10\text{ mm}$ from parturition until discharge 12 days later.

Future Proposal: Samples analysis, review of ultrasound exams, presentation of preliminary data at 2024 congresses.

