

Puerperium evaluation in Canindé goats

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The Canindé is a naturalized and highly adapted goat breed, playing an important role in subsistence farming in the semi-arid region. Considering that there are few studies regarding the reproductive parameters of this breed, the goal of this study was to evaluate its physiological puerperium.

Five multiparous Canindé goats (body condition score = 3; 4 years old) maintained in a semi-intensive system were evaluated from eutocic parturition until the first natural service. Clinical evaluations were performed daily (0 to 7d post-partum - dpp), followed by weekly evaluation. Once a week, until five weeks post-partum, vaginal smears were obtained, stained with fast panotic kit, and 100 cells were evaluated using light microscopy to determine the percentages of each epithelial cell (basal, intermediate, superficial, and anucleated). Transrectal ultrasounds (7.5 MHz probe; Mindray® M5 Vet, China) were performed, to evaluate uterine involution (a weekly measurement of the uterine body wall thickness) and to detect follicular growth and ovulation (every 2 days, beginning 35 dpp). Mean percentages of epithelial cells/weeks were compared using Dunn test (5% confidence level). The interval between parturition and final uterine involution (constant uterine wall thickness), initial follicular growing and ovulation are presented using descriptive analysis.

None of the goats had clinical signs of disease throughout the experiment. The percentages of superficial and anucleated cells were similar and not influenced by time. From three weeks post-partum, there was a reduction in the percentage of basal cells, concurrently with an increasing in the percentage of intermediate cells, compared to first week ($P < 0.05$) – Figure 1. Uterine involution was completed between three and four weeks post-partum, in three and two goats, respectively. Follicular growing was detected at $41,8 \pm 4,2$ dpp (mean \pm SD; ranging from 38 to 48 dpp), and ovulation occurred between 48 and 53 dpp, with all goats accepting natural service – Figure 2.

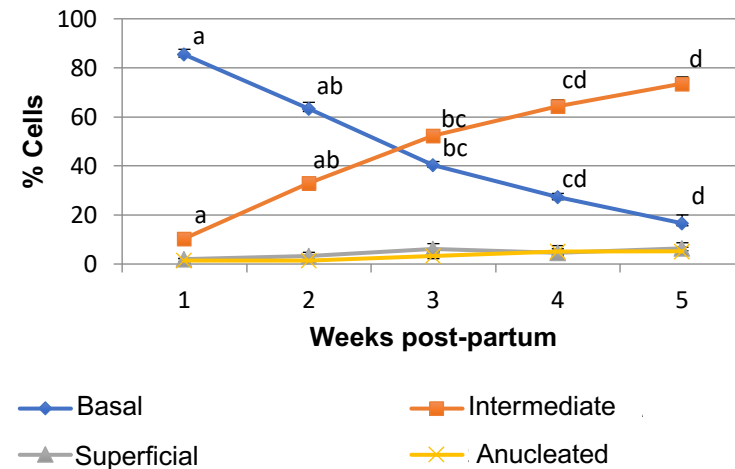


Figure 1. Mean \pm SEM of vaginal epithelial cells in Canindé goats puerperium.

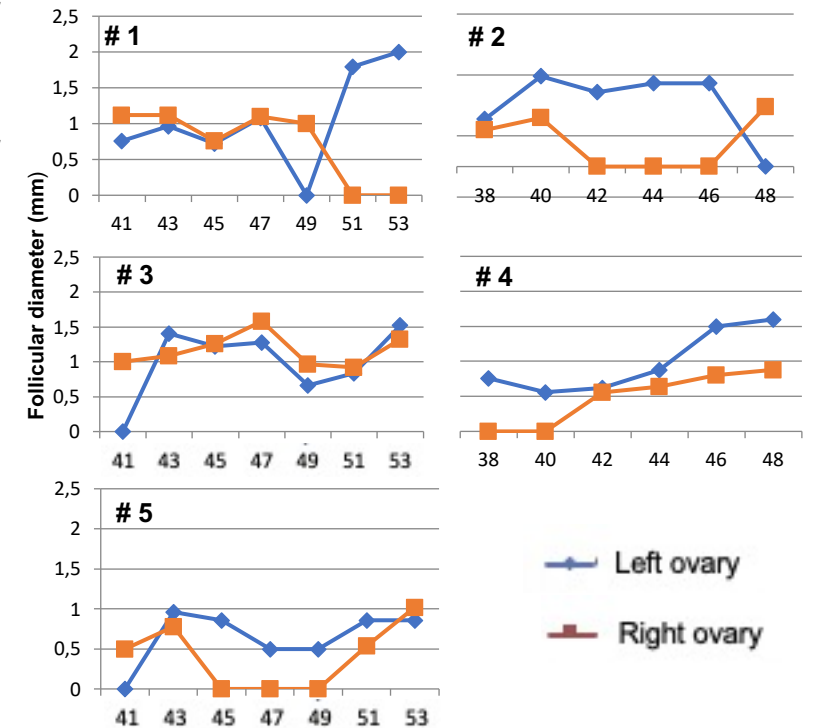


Figure 2. Diameter of bigger follicle/ovary during puerperium in Canindé goats.

In conclusion, uterine involution precedes the detection of antral follicular growing in Canindé goats, but changes in vaginal cytology indicate the influence of reproductive hormones three weeks before first ovulation post-partum.