

## RELATIONSHIP BETWEEN VASCULAR DENSITY OF GOATS' CORPUS LUTEUM AND THE SERIC CONCENTRATION OF PROGESTERONE DURING THE ESTRAL CICLE

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The corpus luteum (CL) regulates so much the estral cycle as the pregnancy. The aim of this study was to evaluate the relationship between the vascular density (VD) of the CL and the progesterone production in goats during the estral cycle (DEC). Twenty animals were submitted to hormonal treatment for induction/synchronization of estrus. After treatment, the bovid were subdivided into four groups (n = 5 each) and slaughtered on days 2, 12, 16 and 22 post ovulation (p.o.). Afterward, the CLs were retrieved for measurement of the DV by means of stereologic methods. Blood samples were collected and the seric progesterone concentration (P4) was analyzed by the conventional RIA. The DV and P4 concentration were affected by the estral cycle phase, being observed larger values on day 12 p.o. Statistical analysis evidenced a difference and a significant correlation of VD and P4 DEC concentration ( $p < 0.05$ ). It is concluded that, the production of progesterone is associated with the increment of blood vessels during the estral cycle.

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