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**ESTUDIO PRELIMINAR DE LA HISTOLOGÍA OVÁRICA EN OVEJAS ADULTAS CON
EXPOSICIÓN PRENATAL A TESTOSTERONA (EPT)**



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I. RESUMEN

ESTUDIO PRELIMINAR DE LA HISTOLOGÍA OVÁRICA EN OVEJAS ADULTAS CON EXPOSICIÓN PRENATAL A TESTOSTERONA (EPT).

PRELIMINARY STUDY OF OVARIAN HISTOLOGY IN TESTOSTERONE PRENATALLY EXPOSED (TPE) ADULT FEMALE SHEEP.

La EPT en la hembra ovina, se asocia en la adultez con alteraciones metabólicas y endocrinas similares a las observadas en mujeres con SOP (síndrome ovario poliquístico). El objetivo de este estudio fue determinar el efecto de la EPT en la histología ovárica de ovejas adultas. Se utilizaron 5 hembras EPT y 4 hembras control, cuyos ciclos estrales se sincronizaron con dos inyecciones de PGF2 α separadas por un intervalo de 11 días. Cuarenta y ocho horas después de la segunda inyección de PGF2 α , se ovariectomizaron unilateralmente. Los ovarios se colocaron en formalina tamponada al 10%, luego se realizaron cortes seriados cada 400 μm , de 3 μm de grosor cada corte. Se registró el espesor de la túnica albugínea, el diámetro de los folículos y la presencia de quistes. Las mediciones se hicieron con el Software K-100 versión 3.0 de Zeiss®. La túnica albugínea en ovarios de hembras EPT presentó un grosor mayor que la de las hembras control ($P < 0,05$). En tres ovarios EPT se encontraron quistes con la teca interna engrosada y en proceso de luteinización ($P = 0,07$). Las diferencias encontradas indican que la EPT afecta la histología ovárica de ovejas adultas.

Palabras claves: folículos, teca, granulosa, túnica albugínea, quiste, SOP (síndrome ovario poliquístico).

II. SUMMARY

The female sheep prenatally exposed to an excess of testosterone is associated in adulthood with metabolic and endocrine alterations, similar to the those observed in women with PCOS (polycystic ovary syndrome). The objective of this study was to determine the effect of the exposure to an excess of testosterone during fetal development on the ovarian histology of adult female sheep. 5 EPT females and 5 control females, whose estrous cycles were synchronized with two injections of PGF2 α separated by an interval of 11 days were used. Forty eight hours after the second injection of PGF2 α , females were unilaterally ovariectomized under halothane anesthesia. The ovaries were placed in 10% buffered formalin, afterward, 400 μ m serial cuts of 3 μ m of thickness. Thickness of the tunica albuginea, the diameter of the follicles, diameter of the theca and granulosa layers and the presence of cysts were recorded,. Measurements were done using the Software K-100 version 3,0 of Zeiss. The tunica albuginea of EPT females was thicker than that of control females ($P < 0.05$). The presence of cysts was observed in three ovaries of EPT females and in one ovary there were two of these cysts. Cysts were in the thickened internal theca layer and in process of luteinization ($P = 0.07$). These results suggest that differences in histological appearance of ovaries from EPT females is consequence of the fetal exposure to testosterone.

Keywords: follicles, theca, granulosa, tunica albuginea, cyst, PCOS (polycystic ovary syndrome).