

Follicular-stromal interaction in mare ovary during the reproductive cycle

Interacción estroma-folículo en el ovario de la yegua durante el ciclo reproductivo

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Ovogenesis and folliculogenesis in the mare differ from other farm animals and therefore, gamete manipulation, in vitro fertilization and embryo transfer have been very difficult. The histologic traits of ovaries from 12 mares, in estrus and diestrus were studied. Number and size of follicles and corpora lutea were recorded. The ovarian stroma was evaluated using the picrosirius technique for collagen. A simple morphometric analysis was done using computerized scanner programs. During late estrus, one dominant follicle (46 ± 4 mm) is seen. The surrounding stroma contains collagen I and III. By the end of the estrus, one hemorrhagic follicle is seen, plus one or two small follicle (2 mm in size). In early diestrus there is a corpus luteum (43-60 mm) and some antral follicles (6 ± 1). Collagen I forms strands inside the corpus luteum and predominates in the perifollicular ovarian stroma. Modifications of the extracellular matrix may change cell function by way of integrines, the matrix bein