Temporal expression of GDF-9 and BMP-15 mRNAs in canine ovarian follicles

Palomino, Jaime

De los Reyes, Monica

 This study aimed to investigate the expression profiles of growth differentiation factor 9 (GDF-9) and bone morphogenetic protein 15 (BMP-15) mRNA in canine oocytes and follicular cells throughout development at the different phases of the estrus cycle. Ovarian structures (follicles and CL) and plasma progesterone concentration were used to confirm the physiological status of each donor. Denuded oocytes and their follicular cells were recovered from follicles (n = 675) distributed into 4 types (preantral, small antral ?0.2?0.39 mm, medium antral ?0.4?5.9 mm, and large antral ?6?8 mm). Total RNA was extracted and reverse transcribed, and the levels of expression for these 2 genes were determined using a quantitative real-time polymerase chain reaction technique; the data were evaluated by ANOVA. Relative expressions levels of GDF-9 and BMP-15 transcripts were detected in the oocyte and follicular cells in all follicular stages evaluated, showing differential changes