

**Comparison of Total Protein, DNA, and RNA Contents by Corpus Luteum in Various Stages of Estrous Cycle and Pregnancy**

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This study was conducted to measure the total protein, DNA, and RNA contents of corpus luteum (CL) in various stages of estrous cycle and pregnancy.

CLs were collected from a local slaughterhouse and stages of the estrous cycle of CL were classified as CL1~2, days 1 to 10; CL3(with/without central cavity), days 11 to 17; CL4, days 18 to 20 by method of Ireland et. al.(1980) and stages of the pregnancy of CL were classified as P1~3, months 1~3; P4~6, months 4~6; P7~9, months 7~9 of pregnancy.

CL3 with/without central cavity(CC) was identified as described by Kastelic et. al.(1990)-CL with CC, more than 2mm in diameter; CL without CC, less than 2mm in diameter.

In total protein content, CL3 with CC was significantly lower than P7~9( $p < .05$ ).

The total DNA content was lower in CL3 with CC than CL3 without CC and CL4( $p < .05$ ).

In protein : DNA ratio, CL3 with CC was significantly lower than CL4( $p < .05$ ), CL3 without CC was significantly lower than P7~9( $p < .05$ ), CL4 was significantly lower than CL3 with CC, P1~3 and P7~9( $p < .05$ ).

No differences were observed in RNA content, protein:RNA ratio, RNA/DNA of CLs in stages of estrous cycle and pregnancy.

(Key words) *Corpus luteum with/without central cavity, total protein content, DNA content, RNA content, protein:DNA ratio*