

## OVARIAN CATEGORY, FOLLICLES AND OOCYTES ANALYSIS OF GOAT OVARIES IN VIEW OF *IN VITRO* PRODUCTION

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### Extended Summary

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The present study was undertaken to evaluate the slaughter house goat ovaries, follicles and cumulus-oocyte-complexes (COCs) with the view of *in vitro* production of embryos. Goat ovaries were categorized as right, left, with and without corpus leutum (CL) group. Ovaries were then evaluated on the basis of weight (g), length (cm), width (cm), total number of follicle on the surface on each categorized ovaries, number of follicle aspirated, total number of COCs, normal COCs and abnormal COCs. The length (cm) of right ovaries ( $1.19 \pm 0.01$ ) was significantly ( $p < 0.05$ ) higher than left ones ( $1.15 \pm 0.04$ ). It was observed that left ovaries contain comparatively higher number of normal COCs per ovary ( $1.18 \pm 0.10$ ) than right ovaries ( $1.11 \pm 0.09$ ) with an increase of total number of follicles ( $5.20 \pm 0.22$ ) and number of follicle aspirated ( $2.8 \pm 0.11$ ). On the other hand, large number of abnormal COCs was found in the right ovaries than that of left ones with an increase of weight ( $0.70 \pm 0.03$ ), length ( $1.19 \pm 0.09$ ) and width ( $0.82 \pm 0.02$ ). But the total number of COCs per ovary was found almost similar in both ovaries ( $1.97 \pm 0.09$  in right and  $1.97 \pm 0.15$  in left). When compared with the ovaries of with -CL and without -CL group, significantly ( $p < 0.05$ ) higher number of normal COCs ( $1.12 \pm 0.07$ ) were found in without-CL group with an increase of length ( $1.17 \pm 0.01$ ), total number of follicles ( $5.21 \pm 0.03$ ), number of follicles aspirated ( $2.74 \pm 0.12$ ) and total number of COCs ( $1.99 \pm 0.14$ ). But decrease in weight ( $0.66 \pm 0.03$ ), width ( $0.76 \pm 0.02$ ) and abnormal COCs ( $0.87 \pm 0.15$ ) per ovary than with CL group.

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