Abstract:

In this investigation, from 170 Azerbaijan local ewes with age ranges of 1-5 years in Urmia city abattoir both wright and left ovaries were collected and put in buffered formal solution. The estrous cycles of ewes were determined on the base of presence of corpus luteum. The pregnancy was determined through presence of fetus in the uterus. The ovaries were processed through paraffin embedding and cut at 7µm, and stained through hematoxylin-Eosin, Periodic Acid Schiff, Masson's Trichrom techniques. The macroscopic parameters of ovaries including weight, volume, length, and thickness were recoded. In the histologic investigations all types of ovarian follicles (primordial, uni- layer primary, multi-layer primary, secondary, tertiary matured and cystic follicles), corpora lutea (active and degenerating) were recorded. Then all quantitative parameters were also recorded, and by the application of SPSS- 17 soft wares, were analyzed. In first step data were analyzed for homogeneity of variances, then one way ANOVA at 95% ($p<0.05$) was performed. For comparison between means Duncan's test was performed. In the morphologic study of different types of ovarian follicles in both follicular, luteal phases and pregnancy all types of follicles including primordial, uni- layer primary, multi-layer primary, secondary, tertiary matured and cystic follicles were observed, but the corpus luteum was seen in luteal phase and pregnancy only. The morphometric investigation of wright and left ovaries was revealed that, the mean of all such parameters (including weight, volume, length, diameter, thickness) are significantly ($p<0.05$) higher in wright than left ovary. 67%, and 33% of ewes were non-pregnant and pregnant respectively.14.6% of pregnant ewes were 4-5 year, 32.4% 3 year, 21.2% 2 year and 31.8% 1 year old. It should be acquaint that, out of 170, 39 ewes (23%), and 131 ewes (77%) were in follicular and luteal phases respectively. In 5 ewes (3%) ovarian cysts were observed (including both the phases). In both the phases the population of primordial follicles in comparison to the populations of all other types of follicle was significantly ($p<0.05$) higher. There were not significant ($p>0.05$) differences between other types of growing follicles (uni- layer primary, multi-layer primary, secondary and tertiary). The population of tertiary follicle was significantly ($p<0.05$) higher than all other types of growing follicles. In the follicular phase likewise there were significant differences in distribution of ovarian follicles and the population of unilayer primary follicles was higher than population of multilayer primary follicles and there were significant ($p<0.05$) differences between population of secondary and tertiary follicles too, but there were not significant differences ($p>0.05$) between multilayer primary follicles and secondary and tertiary follicles. In comparison of ovarian follicles population in follicular and luteal phases data analyses revealed that, the distribution of primordial, unilayer, multilayer primary, and secondary follicles in follicular phase were significantly ($p<0.05$) higher than luteal phase. According to the results of this study, the distribution of all types of growing follicles in the follicular phase were higher than leuteal phase.

Key words: Histology, ovary, pregnancy, sheep