

Anatomical and Histological Analysis of Salpinx and Ovary in Anatolian Wild Goat (*Capra aegagrus aegagrus*)

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Abstract : *Capra* (mountain goat) is a genus comprising nine species. The domestic goat (*C. aegagrus hircus*) is a subspecies of the wild goat that is domesticated. This study aimed to determine the anatomical structure of the salpinx and ovary of the Anatolian wild goat (*C. aegagrus aegagrus*). Animals that were taken to the Kafkas University Wildlife Rescue and Rehabilitation Center, Kars, Turkey, because of various reasons, such as traffic accidents and firearm injuries, were used in this study. The salpinges and ovaries of four wild goats of similar ages, which could not be rescued by the Center despite all interventions, were dissected. Measurements were taken from the right-left salpinx and ovary using digital calipers. The weights of each ovary and salpinx were measured using a precision scale (min: 0.0001 g – max: 220 g, code: XB220A; Precisa, Swiss). The histological structure of the tissues was examined after weighing the organs. The tissue samples were fixed in 10% formaldehyde for 24 h. Then a routine procedure was applied, and the tissues were embedded in paraffin. Mallory's modified triple staining was used to demonstrate the general structure of the salpinx. The salpinx was found to consist of three different regions (infundibulum, ampulla, and isthmus). These regions consisted of tunica mucosa, tunica muscularis, and tunica serosa. The prismatic epithelial cells were observed in the lamina epithelialis of tunica mucosa in every region, but the prismatic fimbriae cells occurred most in the infundibulum. The ampulla was distinguished by its many mucosal folds. It was the longest region of the salpinx and was joined to the isthmus via the ampullary-isthmus junction. Isthmus was the caudal end of the salpinx joined to the uterus and had the thickest tunica muscularis compared with the other regions. The mean length of the ovary was 13.22 ± 1.27 mm, width was 8.46 ± 0.88 mm, the thickness was 5.67 ± 0.79 mm, and weight was 0.59 ± 0.17 g. The average length of the salpinx was 58.11 ± 14.02 mm, width was 0.80 ± 0.22 mm, the thickness was 0.41 ± 0.01 mm, and weight was 0.30 ± 0.08 g. In conclusion, the Anatolian wild goat, which is included in wildlife diversity in Turkey, has been disappearing due to illegal and uncontrolled hunting as well as traffic accidents in recent years. These findings are believed to contribute to the literature.

Keywords : Anatolian wild goat, anatomy, ovary, salpinx

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