Macro and Microanatomical Studies on the Choanal Slit of Turkey (Meleagris gallopavo)

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Abstract:

This work was carried out to describe the morphological characteristics of the choanal slit of the turkey through gross, light, and scanning electron microscopy. The choanal slit measures 27.62 mm long, and constitutes 38.30 % of the total length of the palate. The edges of the narrow part of the choanal slit is smooth rostrally but slightly thickened caudally due to the presence of 2-3 small papillae. The edge of the wide part is thickened because of presence of 5-7 conical and wedge shaped papillae. SEM indicates the presence of median fold within the choana, which represents the direct continuation of the median palatine ridge. After a short distance, this fold bifurcates into right and left folds. Several openings of the palatine salivary glands are demonstrated on the palate at the level of the choanal slit. The epithelium of the oral roof at the level of the choanal slit is stratified squamous epithelium showing intraepithelial sensory corpuscles. This epithelium transforms at the edge of the choanal slit into pseudostratified ciliated columnar epithelium that interrupted by intraepithelial mucous glands surrounded by lymphatic infiltration and nodules. Altogether, this study provides inclusive information on the macroscopic and microscopic morphological features of the choana in the turkey in comparing with those of the other birds.

Keywords:

Choana, Morphology, Palatine ridge, Palatine salivary glands, SEM

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