

Lingual structure of the Chabro chicken *Gallus gallus domesticus* L.: A developmental study

Varsha Gupta*, Muneer Mohhammad Farooqui, Ajay Prakash, Archana Pathak & Abhinov Verma

Department of Veterinary Anatomy, College of Veterinary Science, U. P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan
Wishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura-281 001, Uttar Pradesh, India

Received 07 July 2023; revised 15 March 2024

In birds, morphological structures of floor of the mouth cavity play a vital role in food intake, nutrition and ingestion that forms the basis for clinical pathology and pharmacology. Hence, complete anatomical knowledge on the mouth cavity, floor in particular, is essential. In order to clarify certain morphological aspects of development of floor of mouth cavity, here, we studied the timing of the development of the tongue in the mouth cavity of Chabro chicks. Chick embryos were procured from the 5th to 21st days of incubation. Results revealed that the tongue occupied the cranial 2/3rd part of the floor of the mouth cavity and a laryngeal mound was situated caudal to the tongue. The tongue was triangular in shape and was differentiated into tip, body, and root on the 10th day of incubation. All the biometrical parameters increased with the advancement of incubation. The length of the tongue increased about 8.5 times from 6 to 21 days of incubation. Between the 10th to 21st day of incubation, the ratio between the length and width of the tip increased from 1.02 to 1.86 and the body and root decreased from 0.88 to 0.77 and 1.23 to 0.9, respectively. The conical papillae of the tongue developed on the papillary crest from the 12th day onwards and caudally directed pointed cornified papillae on the mound from the 16th day of incubation. These papillae were fully developed by the 21st day of incubation and arranged in primary and small secondary rows. The tongue was completely developed before hatching and ready to collect food.

Keywords: Junglefowl, Oral cavity, Tongue