CZECH ACADEMY OF AGRICULTURAL SCIENCES

Open Access CAAS Agricultural Journals

Veterinární mec

Investigations on the postnatal development of the foliate papillae using light and scanning electron microscopy in the porcupine (*Hystrix cristata*)

S. Yilmaz, A. Aydin, G. Dinc, B. Toprak, M. Karan

https://doi.org/10.17221/6868-VETMED

Citation: Yilmaz S., Aydin A., Dinc G., Toprak B., Karan M. (2013): Investigations on the postnatal development of the foliate papillae using light and scanning electron microscopy in the porcupine (*Hystrix cristata*). Veterinarni Medicina, 58: 318-321.

download PDF

In this study SEM and light microscopy were used to investigate the structure of the foliate papillae in the porcupine. The foliate papillae consisted of about 10 or 11 clefts. The length of the foliate papillae averaged 2.79 mm and its width averaged 863 µm. Taste buds were located intraepithelial in the basal half of the papilla grooves (*sulcus papillae*). Every wall on each fold harboured from five to nine taste buds. There were two different cell types of taste buds: one stained light (*epitheliocytus sensorius gustatorius*), and the other dark (*epitheliocytus sustentans*). The length and width of the taste buds averaged 190.5 µm and 86 µm, respectively. The ratio of the length to the width of taste buds was 2.21. The average depth of the papilla groves was 1763 µm and its epithelial thickness was 235.5 µm. In scanning electron microscopy, the thickness of the epithelial cell borders was apparent at higher magnifications and there micro-ridges and micro-pits were apparent on the surfaces of these cells.

Keywords:

porcupine; *Hystrix cristata*; foliate papillae; scanning electron microscope (SEM)

download PDF

Contact

Mgr. Zuzana Karlíková
Executive Editor
phone: + 420 227 010 352
e-mail: vetmed@cazv.cz

Address

Veterinární Medicína
Czech Academy of Agricu Sciences

Slezská 7, 120 00 Praha 2, Republic