

A Case of Basal Cell Carcinoma in a Rottweiler Dog

Youn-ju Kim, Sun-hee Do, Kyu-shik Jeong, Keun-woo Lee, and Tae-ho Oh*

College of Veterinary Medicine, Kyungpook National University

Introduction: Basal cell carcinomas are known to be uncommon low-grademalignant tumors in dogs arising from small, pluripotential epithelial cells within the basal cell layers of the epidermis and adnexa. The cause is unknown in dogs, but a genetic predisposition is suggested from its increased prevalence in some breeds. While in humans, there is a correlation between UV light exposure and the development of basal cell carcinomas.

Materials and methods: A 3-year-old, castrated male Rottweiler dog was presented with the history of recurrent cutaneous nodular masses in various body sites despite several surgical excisions. The owner complained severe pruritus and sporadic severe bleeding on lesions from scratching.

Results: The patient had firm and nodular masses on neck, thorax, cheek, forelimbs and left hindlimb. And also the diameter of masses was varied from 1.5 to 3 cm and the surface was ulcerated or severely crusted. CBC and serum chemistry profiles revealed moderate anemia, mild lymphocytosis with monocytosis, and slightly elevated amylase. On impression smear, many RBCs and segmented neutrophils were seen with the evidence of mild bacterial infection. On fine-needle aspiration from the lesions, there were many RBCs, segmented neutrophils, eosinophils and monocytes but no bacteria. Histopathological examination of three lesions by biopsy revealed compact infiltration hyperchromatic and basophilic tumor cells under the irregular growth of squamous epithelium with rete ridge. Basophilic tumor cells with hyperchromatic nuclei, anisocytosis and anisokaryosis invaded the deeper dermis and muscular lesion. Finally, we diagnosed basal cell carcinoma. However the dog having suffered lethargy and bleeding from the lesions was euthanized in local animal hospital on the request of the owner before getting the histopathological result.

Clinical relevance: This is the first case report of basal cell carcinoma in a Rottweiler dog, which is aggressively invasive and has been recurred despite several surgical excisions. In case of ulcerative nodular lesion skin biopsy and histopathological examination should be done to differentiate and make definitive diagnosis of basal cell carcinoma.

*Corresponding author: thoh@knu.ac.kr