Mammary Solid Carcinoma with Squamous Differentiation

Jin-Kyu Park¹, Jung-Youn Han¹, Il-Hwa Hong¹, Dong-Wei Yuan¹, Moon-Jung Goo¹, Ok-Kyung Hwang¹, Kyung-Sook Hong¹, Ae-Ri Ji¹, Mi-Ran Ki¹, Sun-Hee Do², Tae-Hwan Kim¹, Seung-Geun Lee³, Hoon Ji¹, Se-Hyeon Han¹, Jae-Chung Jo¹ and Kyu-Shik Jeong¹

¹Department of Pathology, College of Veterinary Medicine, Kyungpook National University, Daegu 702-701, Republic of Korea
²Department of Clinical Pathology, College of Veterinary Medicine, Konkuk University, Seoul 143-701, Republic of Korea
³Go-ryuh animal hospital, Cheongju, Republic of Korea

Introduction: Mammary solid carcinomas are rather frequent in dogs and cats. They are usually ill defined, but some of them were well circumscribed. Poorly differentiated glandular neoplastic cells are arranged in solid sheet, cords or nests. However, squamous differentiation of mammary carcinoma has been very rarely reported in veterinary literature. They contains adenocarcinomatous component and area of squamous differentiation with laminated keratin pearls. We describe a case of mammary solid carcinoma with squamous differentiation in a dog.

Materials and Methods: A 5 year-old, female, Cocker Spaniel dog has been presented with left 7th mammary mass. The mammary mass was excised surgically and referred to department of veterinary pathology, Kyungpook National University for histopathological examination. The mass was fixed in 10% formalin. 4μm thick paraffin sections were prepared routinely and stained with hematoxylin and eosin for microscopical finding.

Results: The mammary mass with diameter of 1.5cm was soft and well-circumscribed. Microscopically, the mass was composed of poorly differentiated glandular epithelial cells which had large vacuolated prominent nucleus, prominent nucleoli and scant cytoplasm. The glandular neoplastic cells arranged in solid sheets with neovascularization and 4-7 mitotic figures per high power field (400) were observed. Some parts of the solid showed keratin pearls surrounded by areas of squamous differentiation.

Conclusions: Two major components, adenocarcinomatous tissue and squamous cell region, were observed in present case. Therefore, we diagnosed present case as mammary solid carcinoma with squamous differentiation and this case has been very rarely reported in dogs.

Reference


Corresponding Author: Kyu-Shik Jeong (jeongks@knu.ac.kr)