

Detection of Oncogene HER-2/neu Protein Expression and  
Histopathology in Canine Mammary Gland Tumors

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Mammary gland tumors (MGTs) are the most frequently found in bitches and form the third most frequent in queens. Mammary tumors usually present as nodules. In dogs, mammary tumors are notorious for their variation in structure and biological behavior. The purpose of this study was to evaluate the protein expression of *Her-2/neu* in mammary carcinoma and to determine its prognostic value. Tumor tissue from 105 patients from at the Konkuk University Animal Teaching Hospital and Small Animal Clinic in area of Seoul from 2002 to 2004 was tested. *Her-2/neu* expression was evaluated by immunohistochemistry. In most of squamous cell carcinoma types of MGTs in which the *adenosquamous carcinoma* cells were positive to *Her-2/neu* protein. As revealed in this study, the exclusive over expression of *Her-2/neu* in canine MGTs suggests that *Her-2/neu* is a potential candidate protein for further investigation of mammary tumorigenesis and complex etiology of the canine model of mammary neoplasms. In the following article, we will discuss current thoughts surrounding the diagnosis and further treatment options for both canine and feline MGTs.

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