



RESEARCH PAPER

Histological grading of canine mammary tumors and prognosis *via* epidermal growth factor level

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Abstract : Histological grading is convincing parameter to categorize the malignant canine mammary tumors (CMT) as per tissue aggressiveness. The Elston and Ellis grading method in humans, invasive ductal breast carcinomas and other invasive tumors are consistently used. The aim of this study was to categorize mammary gland tumors and also application of a human grading method in canine mammary carcinoma. Studied the EGFR elevated level to significantly relate with clinico-pathological features and poor prognosis of CMT. This study include 74 canine tumors of mammary glands. Under the category of mammary tumors 21 benign and 53 malignant, including nine inflammatory mammary carcinomas (IMCs) were included in this study. The carcinomas were further classified as simple carcinoma 67.57% (n=50) followed by complex carcinoma 12.16% (n=9), sarcomas 12.16% (n=9), carcinoma commence from benign tumor 2.71% (n=2) and unique type of carcinoma 2.71% (n=2). Further, simple carcinomas (n=50) were subdivided into 72.00% (n=36) tubulopapillary carcinoma, 8.0% (n=4) solid carcinoma and 20.0% (n=10) cribriform carcinoma. This study finding represents the Elston and Ellis, a promising method for histological grading of canine mammary tumor, in order to correlate with histopathological classification. Tested the epidermal growth factor receptor (EGFR) level in undertake malignant CMT prognosis suggesting that EGFR a therapeutic target in reference to histological aggressiveness and especially in CMT disease prognosis and significantly compared to control groups (at $p < 0.05$ level).

Key Words : Canine mammary tumors, Malignant, Prognosis, Histological aggressiveness, Epidermal growth factor

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