

## Comparative Study of Several Cases of Human Breast Cancer and Mammary Cancer in Domestic Dogs and Cats

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A useful model for studying tumor systems, which is close to the human analogue, is very necessary for development of modern approaches and methods in cancer researches. As breast cancer is the second leading cause of cancer deaths in women, spontaneous mammary tumors in domestic animals are feasible solution for valid tumor systems model. In this study we present histological diagnosis and grading of human, canine and feline mammary tumors and evaluate their histological and biological behavior. Histological diagnosis of animal tissue samples found five cases of ductal carcinoma (n=5, 62.5%), one lobular carcinoma, one squamous cell carcinoma and one case of metaplastic carcinoma with osteosarcomatous differentiation, graded from I to III: I (n=1, 12.5%), II (n=4, 50%) and III (n=3, 37.5%). Four of the human cases were diagnosed as invasive ductal (n=2, 40%) and lobular (n=2, 40%) carcinoma, one case - metaplastic carcinoma, all scored as grade III.

*Key words:* mammary cancer in dogs and cats, breast cancer, histological grading.