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Oral presentation

Efficacy and toxicity of neoadjuvant doxorubicin and cyclophosphamide in dogs with locally advanced mammary tumors: Preliminary results

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Abstract

The aim of this study was to investigate the effect and toxicity of doxorubicin cyclophosphamide combination in neoadjuvant use in dogs with locally advanced mammary tumors. In this study, doxorubicin and cyclophosphamide combination was applied as neoadjuvant chemotherapy to dogs with 8 locally advanced mammary tumors of various breeds aged 8-14 years. A tru-cut biopsy from the mammary tumor and fine needle aspiration biopsy from the relevant lymph node were obtained from all dogs before neoadjuvant chemotherapy. The samples were sent to the pathology laboratory for histopathological examination. Pathology results of the dogs; adenocarcinoma (n: 5), tubulo-papillary carcinoma (n: 2) and malignant mix tumor (n: 1). Neoadjuvant chemotherapy was determined as doxorubicin 25-30mg / m² and cyclophosphamide 100mg / m² as i.v slow injection and 4 administrations with 3 week intervals. Before each chemotherapy, the dogs was followed up with blood examination and detailed clinical examination. Toxicity and efficacy of this treatment were determined by clinical examination, laboratory tests and measurement of tumor diameter. Although no side effects were observed during treatment as toxicity, clinical findings such as fever, vomiting, anorexia, lethargy, weight loss, alopecia, enteritis, skin ulceration, and laboratory findings such as neutropenia and decreased hematocrit values were observed after treatments. Based on the longest diameters of tumors before and after neoadjuvant chemotherapy; complete response was detected in 2 dogs (25%), partial response in 2 dogs (25%) and stable disease in 4 dogs (50%). According to preliminary results, the toxicity of doxorubicin and cyclophosphamide combination in neoadjuvant chemotherapy in dogs with locally advanced mammary tumors is acceptable and are seen to be promising in treatment.

Keywords: Dog, locally advanced mammary tumor, neoadjuvant chemotherapy, doxorubicin, cyclophosphamide

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