A Case of Disseminated Melanoma with Esophageal Metastasis in a Dog

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Abstract. Melanoma is a tumor commonly diagnosed in dogs, in which the hereditary component is believed to play a significant role in the occurrence and prognostics. Although the metastasis’ localizations in melanoma are difficult to predict because of the complex factors that determine tumors’ cells implantation in tissues, in dogs melanocytic metastases were observed in most of the organs. In this study we described, from our knowledge for the first time in dogs, a case of skin pleomorphic melanoma with multiple esophageal metastases.

Keywords: dog malignant melanoma, esophageal melanoma, disseminated melanoma

Introduction. Oesophageal metastasis of skin melanoma is rarely reported in human medicine (Eng, 1989; Naomoto 1998) and, from our knowledge, never observed in animals’ medical literature. Here, we present a case of metastatic skin malignant melanoma in a 7 years old, male Rottweiler with thoraco-abdominal visceral metastases, including the cervical and abdominal areas of oesophagus.

Materials and methods. For the case history, at the first instance the animal was presented with a 3/4 cm cutaneous mass at the right thoracic limb, without changes in the local lymph nodes at the clinical examination. Histology of the widely excised tissue specimen revealed malignant melanoma (Clark Level V). Five months after surgical removal of the primary tumour the dog was euthanized because of the multiple metastases and poor body condition. The body was submitted to necropsy and tissue samples were harvested for histologic examination. The melanocytic origin of the primary tumour and metastases was confirmed by immunohistochemistry observing the positivity for vimentin and Melan A.

Results and Discussion. At gross examination the strong local infiltrative character of the primary tumour was noticed, with muscle and anterior knee joint involvement. At the same time, numerous metastases were observed involving the elbow, axillar and prescapular lymph nodes, lung, pleura and pericardium, heart, liver, kidney and spleen. Interestingly, multiple oesophageal metastases, with invasion at the serous level were revealed.

These metastases, of various sizes, in between 2 mm and 3 cm were found in the cervical and thoracic segments of the oesophagus. The involvement of the oesophagus in all these metastases was made from the serous level, according to the melanomas’ sizes infiltrating a different percentage of oesophagus muscle. None of the metastases has gathered the oesophageal muscle tissue. Histologically, the various sized tumours involved cells disposed under the shape of rows or strings, strongly infiltrating the nearby structures. The polymorphic cells, with an epithelioid or fusiform shape, were moderately or intensively loaded with melanin. Some tumours revealed cells with a minimum load of melanin, but according to the
histological and positive reaction for Melan A and vimentine were characterized as metastases of the primary tumours.

**Conclusion.** Histopathologically, the diagnosis was pleomorphic melanoma, the diagnosis being confirmed through the positive immunoreaction of the tumour at Melan A.

**REFERENCES**