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CASE REPORT

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Biliary Cyst as an Occasional Finding in a Dog treated with Splenectomy due to Hemangiosarcoma

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Abstract

Concurrence of splenic and hepatic masses is common in dogs. This paper presents a case of a splenic hemangiosarcoma with concurrent biliary cyst in the liver.

Keywords: *Hemangiosarcoma, Biliary cyst, Metastasis, Thermo-coagulation devices*

Introduction

Hemangiosarcoma is a malignant tumor of the endothelium that forms irregular channels. It is an aggressive tumor, especially in German Shepherd and Golden Retriever, in which there is a high incidence of multricentric hemangiosarcoma affecting spleen, liver, right atrium and lungs [1]. Biliary cysts are infrequent in Veterinary Medicine [2]. In the liver, the origin can be congenital (the most frequent) or acquired, related with chronic inflammation of the biliary ducts [3].

Staples devices have been described for its use in hepatectomies in small animals [4]. Recently, the use of thermo-coagulation devices (LigaSure Covidien®) has demonstrated to be more effective in bleeding control and more cost-effective [5].

Case Report

A 9 years old male German Shepherd was referred to the Surgery Department of the Veterinary Clinical Hospital UCH-CEU because of lethargy, anorexia and apathy of 3 days of duration.

At the clinical examination we found pale mucous membrane, abdominal distension and taquicardia. After complete blood analysis, an abdominal ultrasound was performed and a 10cm mass was diagnosed on the spleen. There was a smaller mass (5cm aprox.) affecting the liver. The patient was sent to the operating room and a complete splenectomy was performed. The mass in the liver was excised with a partial hepatectomy of the caudate process of the right caudate lobule. We used the LigaSureCovidien® forceps in both techniques. The animal was hospitalized for the next 48h, and recovered successfully.Ten days after the operation, when the animal was completely recovered, chemoterapy treatment with doxorrubicine (30mg/m^2/IV/every 3weeks/5 sesions) was started [6]. The progression is favorable and, at present time, the animal has not shown signs of metastasis nor recurrence.The histopathologic report was: splenic hemangiosarcoma and biliary cyst.

Discussion

Biliary cysts are infrequent in veterinary literature. There are cases of biliary pseudocysts diagnosed in animals suffering from portosystemic shunts [7].

In this case, and given the high suspicion of a splenic hemangiosarcoma, the possibility of metastasis at the liver level was assessed. However, in the liver mass no changes compatible with neoplasia were observed. This mass contained necrotic material along with blood, fibrin and crystal remains, compatible with bile material. The material was surrounded by a fibrous capsule, with cubic epithelium in some areas, compatible with the epithelium of the bile ducts. A biliary cyst was diagnosed.

The animal had not suffered from signs of biliary obstruction, and the analytical showed no changes compatible with it. Therefore, it was suspected that the most probable origin of the biliary cyst was congenital, and so far asymptomatic.

Spleen biopsy revealed proliferation of endothelial cells embedded in collagen trabeculae forming vascular channels, with a moderate degree of anisocytosis and anisocariosis and a mitosis number of <1 per field of 400X, with hemangiosarcoma being diagnosed.

Regarding the surgical technique, the use of the LigaSure Covidien® forceps allowed us to reduce surgical time and intraoperative bleeding, improving recovery and postoperative pain.

In cases of splenic tumors associated with non-traumatic hemoabdomen, the liver should be thoroughly evaluated and, in

the presence of a mass, histopathologic analysis of this is essential to determine the presence or absence of metastasis [8]. This is essential at the time of staging the oncological patient, issuing a prognosis and establishing the appropriate treatment. There is a possibility that these hepatic masses are of a benign nature and are not related to the splenic tumor, as is the case with this biliary cyst.

Conclusion

The German Shepherd is a predisposed breed to the concurrence of splenic and hepatic masses. In these cases, when the splenic mass is a hemangiosarcoma, more than half of the liver biopsies (66.7%) turn out to be hemangiosarcoma. The coexistence of masses in these organs, a priori, should not be a negative factor when deciding to operate on these patients, since it does not imply a necessary malignancy, especially if we lack a definitive histopathological diagnosis [9].

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