

CASE STUDY

Diffuse Iris Melanoma in A Dog - A Case Report

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ABSTRACT

A ten year old, female dog was presented with a history of pigmentation of the left eye. Clinical and radiographical examination did not show any evidence of metastasis and surgical enucleation of the eyeball was done under general anaesthesia. Histopathological evaluation confirmed the condition as melanoma with diffuse involvement of the iris stroma. Postoperative antibiotics were administered for 7 days and however the animal didn't made uneventful recovery.

Keywords: LhassApso, Eye, Enucleation, Melanoma.

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INTRODUCTION

Even though Melanoma and melanocytoma are the most common ocular tumors of the dog [1, 2]. The ocular melanocytic tumors are being rarely reported [11]. Iris is the most common site of origin for ocular melanocytic tumors in dogs [4]. In cats it is commonly known as Feline diffuse iris melanoma (FDIM) [5]. Clinical signs of melanoma includes the presence of proliferative lesions, glaucoma, hyphema, and anterior uveitis [10]. These neoplasms are not specific to particular breed or sex, but Miller and Dubielzig [8] stated that breeds in which the amount of cutaneous pigmentation in higher, may be more predisposed [3].

CASE HISTORY AND OBSERVATIONS

A ten-year-old, female, Lhasa Apso was presented with a history of pigmentation of the left eye that had been progressively enlarging over a period of one year and was not responding to general line of treatment. Upon clinical examination, the dog was apparently normal with intact pupillary light reflex and menace responses. Direct examination of the left eye revealed diffuse pigmentation of the iris especially in the lateral portion, hyphema, uveitis (Fig. 1). Radiographical examination of the thorax did not show any evidence of metastasis. Enucleation of the affected eye ball was advised.

TREATMENT AND DISCUSSION

The animal was premedicated with Inj. Atropine sulphate (Atropine Sulphate Injection®, Vulcan Laboratories Pvt. Ltd, Kolkata) @ 0.04mg/kg sub-cutaneously followed by Inj. Diazepam (Diazepam Injection®Vulcan Laboratories Pvt. Ltd, Kolkata) @ 1mg/kg intravenously and sedated using a combination of Inj. Xylazine hydrochloride (Xylaxin- Indian Immunologicals, Hyderabad)@ 1mg/kg along with Inj. Ketamine hydrochloride (Ketmin®, Themis Medicare limited, Haridwar, Uttarakhand) @ 10mg/kg intravenously. The animal was placed on lateral recumbency and lateral canthotomy was done. A stay suture was applied on the bulbar conjunctiva using polyglactin 910 (Vicryl Plus – Johnson and Johnson, Mumbai) of size 3/0 to hold the conjunctiva tightly and a pre-limbal incision was made. The ocular structures viz., conjunctiva, facia and extra ocular muscles were elevated from the sclera to the optic nerve. A curved hemostatic forceps was applied to arrest the bleeding followed by ligating the optic bundle using chromic catgut (Sutures India Pvt. Ltd. Bangalore) of size 2/0 and the globe was removed. The third eyelid was excised and a sterile surgical gauge was placed and the conjunctiva and tenon's capsule were opposed using polyglactin 910 (Vicryl Plus – Johnson and Johnson, Mumbai) of size 3/0 in simple continuous pattern followed by suturing of subcutaneous layer (Fig. 2). An eye bandage was

applied to protect the surgical site. The excised eyeball was transferred in a 10% buffered formalin container for histopathological examination.

Postoperatively Inj. Ceftriaxone(Bilcef®, Brilliant Bio Pharma Pvt. Ltd., Bollaram, Telangana) @ 25mg/kg body weight was administered intravenously for seven days along with Inj. Meloxicam (Melonex®, Intas Pharmaceuticals Ltd, Matoda, Ahmedabad) @ 0.5mg/ kg intramuscularly to provide analgesia and oral administration of multivitamin syrup for two weeks. Histopathological examination confirmed the condition as melanoma with diffuse involvement of the iris stroma with hematoxylin and eosin staining (Fig. 3). It was reported that the animal died on the 10th postoperative day.

The site of origin for these melanomas are the anterior uvea, ciliary body, and less commonly, from the choroid with low incidence of metastasis [3].

In the present case the animal evinced severe pain on the affected eye, and it showed diffuse pigmentation of the iris laterally, hyphema, uveitis with intact menace reflex and pupillary light reflex as explained by Rovesti *et al.* [10] and Conceição *et al.* [6]. The anaesthetic protocol employed was found to be satisfactory in terms of good induction, adequate muscle relaxation, satisfactory duration of anesthesia and smooth recovery [9]. In this case enucleation of the effected eye ball was carried as a treatment based on clinical examination [7]. The postoperative prognosis will be based on the extent of neoplasia at the time of enucleation.



Fig. 1 Diffuse pigmentation of the iris especially in the lateral portion, hyphema, uveitis



Fig. 2 The third eyelid was excised and the conjunctiva and tenon's capsule were opposed using polyglactin 910 of size 3/0 in simple continuous pattern followed by suturing of subcutaneous layer

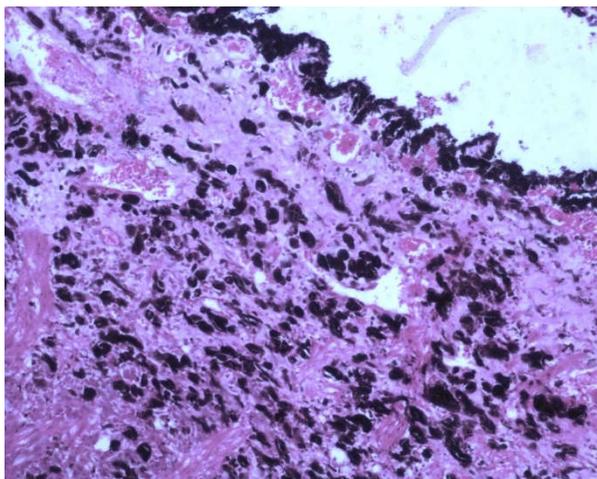


Fig. 3 Histopathological examination with hematoxylin and eosin staining revealed the condition as melanoma with diffuse involvement of the iris

The present paper described a case of melanoma with diffused involvement of iris stroma in a 10 year old intact Lhasa Apso and its surgical management.

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