

# UVEO DERMATOLOGICAL SYNDROME (VOGT-KOYANAGI-HARADA-LIKE SYNDROME) WITH DEPIGMENTATION IN A LABRADOR RETRIEVER DOG: A CASE REPORT

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A 4 year old female Labrador retriever was presented with a history of visual deficit for the past 3 months. A detailed ophthalmic examination with a direct and indirect ophthalmoscope revealed, sluggish PLR, shallow anterior chamber and irregular pupillary border and bilateral uveitis. There was progressive depigmentation of the retinal pigment epithelium in the nontapetal area, tapetal hyperreflectivity and attenuation of the retinal blood vessels. Based on a combination of the ocular and dermatologic lesions it is diagnosed as Uveo Dermatological Syndrome. Medical treatment was initiated with oral glucocorticoids and immune suppressant drugs azathioprine. Both dermatologic and ophthalmic signs showed good improvement, vision was preserved, and some repigmentation of the skin and hair occurred and uneventful recovery was noticed.

**Key words:** Vogt-Koyanagi-Harada syndrome, Uveodermatologic syndrome, Uveitis, Dog, Depigmentation, Labrador.

## Introduction

Vogt-Koyanagi-Harada syndrome (VKH) is a well-established multisystemic autoimmune disorders including ophthalmic (bilateral uveitis), neurologic (dysacusia and meningitis) and cutaneous signs (vitiligo, poliosis, and alopecia) in people (Gaudreau *et al.*, 2012). Similar to the human VKH syndrome, concurrent bilateral uveitis and depigmenting dermatitis was reported in Japanese Akita (Asakura *et al.*, 1977). Unlike with VKH syndrome, neurologic signs are rare in dogs and the term, uveodermatologic syndrome (UDS) has been used for this typical ocular and dermatologic disorder (Herrera and Duchene, 1998). The cause of UDS is still unclear, but immune-mediated reactions against melanocytes have been considered for the probable etiology, the syndrome should be referred to as Vogt-Koyanagi-Harada-like (VKH-like) or uveodermatologic syndrome (UDS) (Yamakiet *al.*, 2000; Angles *et al.*, 2005; C toi *et al.*, 2007). This report

describes the ocular and dermatological features of UDS in a Labrador retriever dog.

## Case Report

A 4 year old female Labrador retriever was presented to the small animal ophthalmology unit, Department of Veterinary Surgery and Radiology, Madras Veterinary College, Teaching Hospital Chennai, from Hyderabad with a history of visual deficit for the past 3 months. The dog was initially treated for a 2 weeks at a private clinic with Dorzolamide, Ciprofloxacin, Prednisolone, Timolol eye drops and Lacrigel ocular lubricant. A detailed ophthalmic examination with a direct and indirect ophthalmoscope revealed, sluggish PLR, shallow anterior chamber and irregular pupillary border and bilateral uveitis (**Fig.1**). There was progressive depigmentation of the retinal pigment epithelium in the nontapetum, tapetal hyperreflectivity and attenuation of the retinal blood vessels. A detailed dermatological examination showed buccal mucosa depigmentation and labial mucosa ulceration (**Fig. 2**).



**Fig. 1.** Blepharedema and Uveitis.



**Fig. 2.** Buccal mucosa depigmentation and labial mucosa ulceration.

Complete blood profiles like CBC and serum chemistry were normal (**Table 1**). The intraocular pressures (IOP) in the both eyes were within normal limits (OD: 18 mmHg, OS: 24.2 mmHg, reference value: 15-

26 mmHg).Based on the history, ophthalmic examination results and a combination of the ocular and dermatologic lesions, the dog was diagnosed as uveo dermatological syndrome (UDS) (**Fig.3**).

**Table 1**

Parameters	Hb (g/dl)	PCV (%)	RBC (m/cmm)	WBC (m/cmm)	Platelets (laks/cmm)	BUN (mg/dl)	Creatinine (mg/dl)	ALP (IU/dl)	ALT (IU/dl)	Glucose (mg/dl)
Value	16.8	45.6	6.82	5600	2,58,000	17.91	1.18	156	98	108



**Fig.3:** Appearance of the ocular and dermatological lesions in a 4 year old female Labrador Retriever.

## Discussion

UDS is an immune mediated disease; characteristic features of UDS are bilateral uveitis followed by cutaneous depigmentation. Usually ocular signs are observed prior to the dermatologic signs (Herrera and Duchene, 1998). UDS is the most commonly affected Duchene, 1998; Baiker *et al.*, 2011; Blackwood *et al.*, 2011). There is no sex predilection and reported ages are variable (6 months to 13 years). Long term prognosis of UDS is guarded and lifelong therapy using systemic immunosuppressive medication is usually needed (Blackwood *et al.*, 2011). Since secondary glaucoma, cataract, and visual loss is common in uncontrolled cases, early diagnosis and aggressive treatment is essential (Baiker *et al.*, 2011).

Both topical and systemic steroids are treatment of choice and other immunosuppressive drugs, such as azathioprine, cyclosporine and niacinamide or cyclophosphamide can be used as steroid-sparing drugs (Pye, 2009; Slatter, 2008)). Triamcinolone and dexamethasone are used in refractory cases (Blackwood *et al.*, 2011). Treatment should be initiated earlier to increase the chance to recover, but prognosis for vision in most cases is often guarded (Herrera and Duchene, 1998).

The present case underwent a combined initial immunosuppressive therapy with prednisolone 2 mg/kg b.wt and azathioprine 2 mg/kg b.wt PO which was gradually tapered. In addition, topical prednisolone and atropine were applied. The maintenance therapy consisted of oral azathioprine on alternate day long term therapy. A rapid improvement of the cutaneous clinical signs was observed with the therapy and repigmentation started after 2 months of treatment

## Conclusion

UDS in a Labrador retriever was diagnosed and treatment with oral glucocorticoids and immune suppressant

breeds, Akitas, Siberianhusky, Alaskan malamutes, Samoyed Irish setter, Golden retriever, Old English sheepdog, Saint Bernard, Shetland sheepdog, Chow Chow, Dashshund, Fox terrier, Basset hound, Brazilian fila, Jack Russell terrier and rat terrier (Angles *et al.*, 2005; Herrera and drugs azathioprine. Both dermatologic and ophthalmic signs showed good improvement, vision was preserved with the long term therapy and repigmentation of the skin and hair occurred and uneventful recovery was noticed.

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