

CASE REPORT

Ischaemic Necrosis of Pinnae in a Dachshund Dog – A Report

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Ischaemic necrosis or thrombo-vascular necrosis of pinnae or pinnal margin vasculopathy is a slowly progressive idiopathic syndrome characterized by wedge-shaped devitalization and necrosis of the distal pinnae. It may occur either in unilateral or bilateral forms, bilateral affection being more common. Initially, an erythematous swelling and discoloration may be noted in the center of the medial aspect towards the apex of pinnae. Later, a necrotic ulcer may be seen in the center of the lesion, progressing to exudation and hemorrhage. In chronic cases, the areas of ulceration undergo complete necrosis resulting in deformity. Although there is no age, sex, and breed predisposition, certain breeds like Dachshunds and Chihuahuas are commonly affected (Morris *et al.*, 2013; Nuttall *et al.*, 2005). This communication reports a case of ischaemic necrosis of pinnae in a Dachshund dog with its successful clinical management.

CASE HISTORY AND CLINICAL OBSERVATIONS

An adult male Dachshund of 6 years age was presented to University Veterinary Hospital with the complaint of bleeding from the ear tip since the previous day. Skin discoloration, along with pruritus, was noticed for a few days by the owner. The animal was unvaccinated and was dewormed three months back with pyrantel pamoate suspension. When presented, the dog appeared active and alert. On examination, circular ulcerated lesions could be noticed towards the center of both the ear tips (Fig. 1). Dried blood stains were visible in the medial aspect of the left ear's pinnae,

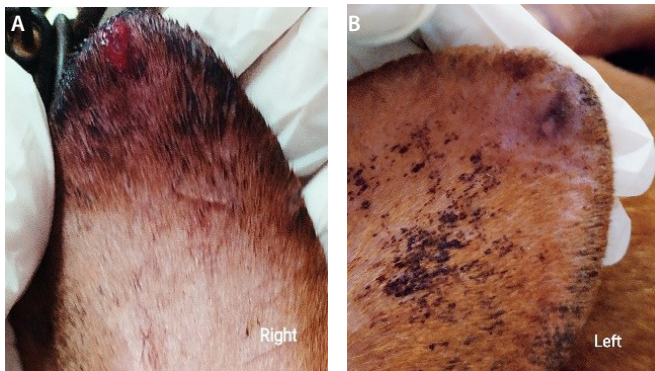


Fig. 1A and B: (A) Necrotic ulcer noticed in the center. Alopecia around-ear apex; (B) Wedge-shaped hemorrhagic ulceration

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indicating hemorrhage from the ulceration. Fresh bleeding could be noticed in the lesion in the right ear. The lesions were found confined to ear pinnae alone and not seen in the tail tip or distal legs, hence ruling out other vasculitis conditions affecting extremities. Based on the nature and the site of occurrence of the lesion, the condition was diagnosed as bilateral thrombo-vascular necrosis of ear pinnae.

CLINICAL MANAGEMENT AND DISCUSSION

Since most studies suggest a pathomechanism involving hypersensitivity reaction (Type III) for pinnal vasculitis, immunosuppressive therapy was initiated in this case. Orally prednisolone (Tab. Wysolone) was prescribed at 1 mg/kg P.O. q24 hrs initially for one week. Clinical improvement was marked by the disappearance of bleeding and new hair growth after three weeks of therapy (Fig. 2). The dose was tapered to 0.5 mg/kg P.O. q48 hrs and continued for two more weeks.

The major pathology is the development of idiopathic cutaneous vasculitis, which results in the destruction of vessel wall by the inflammatory cells. Sometimes there may be deposition of immune complexes in the vessels leading to vasculopathy. Blood flow to the end arteries in the pinnal region is affected, leading to ischemia. Initial lesions include swelling, erythema, and skin discoloration of the pinna towards the apex region. A positive response to diascopy confirms the presence of dermal hemorrhage.

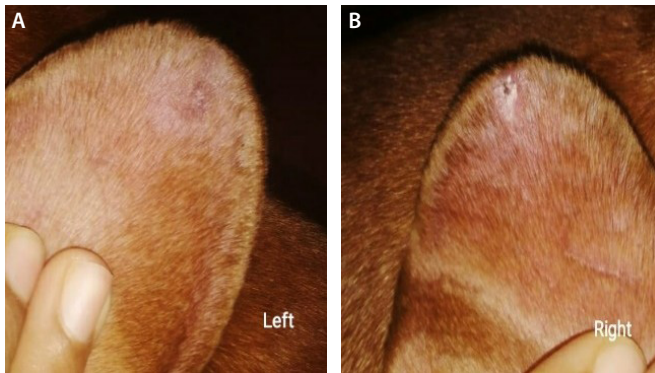


Fig. 2A and B: Three weeks post-therapy

As the condition progresses, ulceration develops, starting from center towards the periphery in a wedge-shaped manner (Gross *et al.*, 2005). Histopathology from the affected site is useful for confirmatory diagnosis. Thickening of walls of small dermal arterioles, fibrinoid degeneration, fibrous thrombi along with or without secondary changes of ulceration, inflammation, hemorrhage, and dermal fibrosis are the major histology changes (Gross *et al.*, 2005). The presence of pathognomonic lesions, as in the present case, helps the clinician to initiate the therapy even without histopathology.

In less severe cases, immunomodulatory therapy can be initiated with pentoxifylline. It increases erythrocyte flexibility and decreases blood viscosity allowing increased oxygenation to the apex. If an infectious etiology is suspected for vasculitis, doxycycline may be added (Rosenberg, 2018). Immunosuppressive therapy with prednisolone is followed in severe cases. For cases that are

refractory to glucocorticoids, azathioprine or cyclosporine are added to the treatment regimen (Miller *et al.*, 2013). Considering the ease of availability and previous reports of positive response to the condition, glucocorticoid therapy was preferred in this case (Unny *et al.*, 2018). Necrosis and serrations of pinna can develop in cases which are diagnosed late, which are not treated promptly and which do not respond properly to treatment. Partial pinnectomy is the last resort in cases that are unresponsive to medical therapy (Rosenberg, 2018).

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