

Case Study

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Puppy Strangle in Labrador Puppy- A Case Report

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ABSTRACT

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The present report describes a case of puppy strangles in a 65 days old male Labrador puppy. The animal presented with a chief complaint of anorexia, sudden onset of swelling of the muzzle, eyelids, and face, nodules on the bilateral neck and forelimb, bilateral ear discharge for ten days after the administration of primary vaccination. The case did not respond to antibiotic therapy on an examination, the puppy was dull and lethargic with a high body temperature (103.2°F) physical exam revealed focal alopecia, erythema, crusted nodular lesions over the muzzle, eyelids, face, and forelimb swelling of submandibular lymph nodes noticed. Based on age, typical clinical findings, distribution of lesions, and the history of unaffected littermates, the disease is diagnosed as juvenile cellulitis. Skin lesions and pain greatly improved following immunosuppressive corticosteroid therapy. The animal responded to the medication well and recovered in 14 days.

Introduction

Puppy Strangle (Canine Juvenile cellulitis) is a rare granulomatous and pustular disorder of the face, pinnae, and submandibular lymph nodes, usually, puppies are affected between the ages of 3 weeks and 4 months (Kumar *et al.*, 2013). Approximately 50% of affected puppies are lethargic and depressed (Scott *et al.*, 2001, Mason and Jones, 1989) and the clinical signs are often rapidly progressive within 24hr to 48 hr. and characterized by painful swelling of the muzzle, lips, and eyelids and Submandibular lymphadenopathy occur. Otitis externa is common, and pinnae

are frequently thickened and edematous. Nodules over the trunk, preputial, and perineal areas as well as sterile suppurative arthritis manifesting as joint pain, have been reported in a small number of cases (David, 2015).

The disease has a heritable component as it has been documented more frequently in certain breeds like Golden Retrievers, Labrador Retriever, Siberian Husky, Miniature Poodle, Lhasa Apso, Dachshunds, Gordon Setters, and Weimaraners (Scott *et al.*, 2001). It has been reported that occurrence of canine juvenile cellulitis may be related to

an immunological response to modified live canine distemper virus, adenovirus-2 and parainfluenza vaccine (Reimann *et al.*, 1989).

History, Clinical examination, and diagnosis

A 56 days old Labrador retriever weighing 2 kg was presented with a history of forelimb lameness, fever, anorexia, sudden onset of swelling of muzzle, eyelids, and face (Fig-1). nodules on the bilateral neck and forelimb (Fig-2), bilateral ear discharge for 10 days after the administration of primary vaccination. The case did not respond to antibiotic therapy. Clinical examination of dog revealed erythema, crusted nodular lesions on muzzle, eyelids face and forelimb, swelling of sub-mandibular lymph nodes. Based on typical clinical findings and response to therapy, the disease was diagnosed as juvenile cellulitis and clinical treatment undertaken. Condition must be differential diagnosed with demodicosis, deep pyoderma, adverse reaction to drug,

dermatophytosis and pemphigus foliaceus (Dubey and Sarkar, 2013).

Treatment and discussion

The present case was successfully managed with an oral Prednisolone @ 2mg/kg once daily for 14 days followed by oral prednisolone @ 1mg/kg every 24 hr for 7 days. Syrup. Vita best derm (containing multivitamin) orally @ 5ml every 24hr for 15days once-daily also prescribed. On the 2nd day, significant improvement in skin lesions and pain greatly improved following immunosuppressive corticosteroid therapy, and the animal recovered in 14 days.

Canine juvenile cellulitis is cutaneous manifestation of a systemic illness characterized by erythema, crusted nodular lesions on muzzle, eyelids, face, pinna and swelling of sub-mandibular lymph nodes usually affects one individual in a litter and has an autoimmune cause with a hereditary component.

Fig.1 Marked inflammation noticed over the periocular, muzzle, face



Fig.2 Focal alopecia, erythema, crusted nodular lesions over the muzzle, eyelids, face, and forelimb



The disease occurs more frequently in Pointers, Golden Retrievers, Dachshunds, Gordon Setters, and Beagles. In the present case, the general clinical signs of lethargy, pyrexia, anorexia, and the sudden swelling of the face and muzzle were noticed first followed by the development of raised bumps and pustules over the face, muzzle, and ears. Over time, these pustules may rupture, and crust over the affected area seen was similar to juvenile cellulitis. Affected skin is often painful but not pruritic.

The noticeable dermatological signs recorded in this case were in accordance with earlier reports made by (Krishna Nath *et al.*, 2020). although, some authors also observed pustule and crusting over the abdomen, thorax, vulva, prepuce, or anus which is absent in this case. The standard treatment of puppy strangles involves an immunosuppressive dose of glucocorticoid (David, 2015) furthermore, the puppy responded well to immunosuppressive therapy suggesting an etiology related to immune dysfunction. Tapering of glucocorticoid dose must be done carefully to avoid quick relapse of signs. If cytology indicates secondary bacterial infection, suitable antibiotics can be administered. However, in our case animal already treated

by a local veterinarian, and the case does not respond to antibiotics so not used. The presence of puppy strangles lesions is highly characteristic in appearance and taken with the age of onset and the fact that most of the litter are unaffected provides a clear clinical clue (Ihrke, 2008). These clinical clues also are valuable when creating a differential diagnosis list and treatment adopted would be advantageous in a field setting for veterinarians to form an early conclusion of juvenile cellulitis.

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