

SUCCESSFUL MANAGEMENT OF JUVENILE CELLULITIS AND CONCURRENT HYPER-PHOSPHATEMIA IN LABRADOR PUPPY- A CASE REPORT

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A 70 days old Labrador retriever puppy presented at Teaching Veterinary Clinical Complex, Mannuthy with a complaint of lethargy, incoordination, purulent ocular discharge, moist erythematous lesions and fluid oozing from both ear pinnae, oedematous conjunctival mucous membrane and severe submandibular and pre-scapular lymphadenopathy. Haematological examination revealed mild leucocytosis with granulocytosis and mild anaemia. Serum biochemistry showed mild hyperphosphatemia. Folliculitis around muzzle and lips and bilateral blepharitis was observed. Based on the age, history and distribution of lesions, the condition was diagnosed as juvenile cellulitis. The puppy was treated with antibiotics, corticosteroid and topical antibiotics. Animal showed an uneventful recovery after 4 weeks of treatment.

Keywords: Juvenile cellulitis, Lymphadenopathy, Hyper phosphatemia, Corticosteroid.

Juvenile cellulitis (also called juvenile pyoderma or puppy strangles) is an uncommon idiopathic sterile granulomatous dermatitis and lymphadenitis in young dogs (Miller *et.al.*, 2013). It affects mainly dogs of 4 months age and its cause and pathogenesis are not clearly defined yet. Since the dermatitis responds well to corticosteroid therapy, an immune mediated process may be involved in pathogenesis of diseases. Even though there is no established gender predilection, incidence is more in males (Scott and Miller, 2007). The condition is more predispose to the breeds like Labrador Retrievers, Dachshunds, Golden Retrievers, Lhasa Apso and Siberian huskies.

Case history, Observations and Treatment

A male 70 days old partially vaccinated Labrador retriever puppy presented at Teaching Veterinary Clinical Complex, Mannuthy with the complaint of reduced food intake, incoordination and swelling at shoulder region since last 3-4 days. In the whole litter, only this puppy was affected. The animal was lethargic, pre-scapular and sub mandibular lymphadenopathy, erythema, oedema and nodular lesions on ear pinnae with otitis externa (Fig.1), purulent ocular discharge with oedema and congestion of

conjunctival mucous membranes (Fig.2). Haematological examination revealed mild leucocytosis with granulocytosis, mild eosinophilia and mild anaemia. Examination of faecal sample and blood smear were unrewarding. Serum biochemical analysis showed decrease in calcium (7.995 mg/dl) and increase in phosphorus level (6.948 mg/dL). Animal was symptomatically treated with an antibiotic, Cefpodoxime @ 10mg/kg q 24h PO for 5 days, calcium supplement, @ 5ml OD PO, Tab Pantoprazole @ 1mg/kg and Pomisol eardrop @ 6 drops BID for 5 days. After 3 days animal was again presented to the hospital without any improvement in condition. Subcutaneous oedema developed on brisket area with circular non-healing ulcer and oozing of serosanguinous fluid (Fig.3), Folliculitis with vesicular, nodular, pustular and serous lesion with extensive exudation around muzzle and mucocutaneous junction of lips (Fig.4) and bilateral blepharitis with purulent ocular discharge were also observed. Now haematological values were within the normal range. Sample in sterile swab was taken from the lesion for culture and sensitivity. Based on the history of unaffected littermates, distribution of lesion and age of puppy, the condition was diagnosed as juvenile cellulitis.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

Immunosuppression and control of secondary bacterial infection were the main goals of the treatment. Treatment of choice for juvenile cellulitis is the use of glucocorticoid, prednisolone as an anti-inflammatory agent and immunosuppressant. The puppy was treated with prednisolone @ 1mg/kg PO q 24h, antibiotic cefpodoxime @ 10mg/kg q 24h PO, topical antibiotic mupirocin 2% and povidone iodine solution for cleaning the lesions for one week. After one week of treatment animal showed an improvement

with reduction in the size of sub mandibular and pre-scapular lymph nodes, reduction in oedema and exudation from the lesions (Fig.5). Then dose of corticosteroid tapered to half for the next one week. Animal showed marked improvement at the end of 2nd week, size of lymph nodes reduced to almost normal, pustules and exudative lesions almost diminished and subcutaneous oedema subsided (Fig.6). Treatment with prednisolone continued for next one week with tapering dose then stopped.



Fig. 5, After 1st week of treatment



Fig. 6, After 2nd week of treatment

Results and Discussion

Canine juvenile cellulitis is pyogranulomatous dermatitis and lymphadenopathy which affects puppies of age 3 weeks to 6 months. Clinical manifestations of the disease include fever, lymphadenopathy, symmetric pustular, exudative and oedematous lesions on lips, muzzle and ear as also reported by Jyothi *et al.*, 2017. Treatment of choice for juvenile cellulitis is the appropriate use of glucocorticoid prednisolone singly or combination with broad-spectrum antibiotic over a period of 2-3 weeks under observation as also recommended by Simon and Pazhanivel, 2017. An alternate option includes an immune-modulatory drug Griseofulvin @ 14.2- 34 mg/kg BID PO for 3 weeks and cyclosporin as also advocated by Park *et al.*, 2010. If prompt and appropriate therapy is given, the prognosis is favourable as also mentioned by Miller *et al.*, 2013.

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