SURGICO-THERAPEUTIC MANAGEMENT OF ACUTE MOIST DERMATITIS IN DOGS

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ABSTRACT

Four dogs (3 male Labrador and 1 female German shepherd) of different age group were presented Veterinary Clinical complex, CVAS, RAJUVAS with history of matting and crushing of hairs, blood tinged secretion, painful swollen area. Clinical examination revealed signs of alopecia, acute folliculitis, swollen, pruritus, erythematous, exudative and plaque like area, often painful on palpation, crushing and matting of the hair present which appears suddenly with very rapid progression in female. The lesions are mainly located on the lateral aspect of face below the ear, posterior aspect of thigh and neck. This clinical paper reports the successful surgico-therapeutic management of acute moist dermatitis in dogs.

Key words: Dogs, acute, moist dermatitis, pruritus, folliculitis

Introduction

Acute moist dermatitis is a superficial exudative and highly pruritic infection of lesion and are frequently associated with flea bite allergy in dogs and located on posterior part of the body. Other causes may include irritation by other parasites, excessive skin humidity, poor ventilation and poor grooming, mostly seen in thick coated dogs. Clinically, an area of sparsly haired, humid skin is observed with mild cutaneous erosions. In some cases, pyotraumatic dermatitis may evolve to superficial folliculitis and satellite papules and pustules may be seen and lesions may appears thicker and crusted (Khanna *et al.,* 2006). Pruritus, acute folliculitis, matting and crushing of hairs, erythema are common findings according to Narasimha and Shwetha (2013) and Holm *et al.* (2004). Present study describes surgico-therapeutic management of acute moist dermatitis in 4 dogs (3 male Labrador and 1 female German shepherd).

Cases history, diagnosis and treatment

Four dogs (3 male Labrador and 1 female German shepherd) of different age group were presented Veterinary Clinical complex, CVAS, RAJUVAS with complaints of matting and crushing of hairs, blood tinged secretion, painful swollen area from 5 days prior to presentation. Physical examination revealed signs of alopecia, acute folliculitis, swollen, pruritus, erythematous, exudative and plaque like area, and often painful on palpation (Fig. 1). Haematology was done for complete blood count. In 4 cases of acute moist dermatitis, the Hb ranged 8.8-10.0 gdL^{-1} and PCV ranged 27-31%. The TEC, TLC, differential counts and platelets were found within normal reference range. Biochemical examination showed the higher values of ALT (62.9 and 63.6 uL^{-1}) in 2 cases, ALP (range 100.0-107.2 uL^{-1}) in 3 cases and in 1 case (98.5 uL^{-1}), towards higher limit of normal reference range. The TP values (75.8 and 76.2 gL^{-1}) in 2 cases were found higher than the normal reference range while in 1 case towards higher limit (75.0 gL^{-1}) of normal range. The AST, serum urea and creatinine levels in all the 4 cases of acute moist dermatitis were found within normal range.

Surgico-therapeutic management in 4 cases of acute moist dermatitis in dogs was employed by shaving and cleaning of the affected area with chlorhexidine gluconate (0.3%), cetrimide (3%). In 2 cases, topical application of ointment containing clobetasol propionate 0.025%, ofloxacin 0.1%, miconazole nitrate 2.0%, zinc sulphate 3.0% applied on affected part twice a day, for 12 days along with cephalexin (30 mg/kg, per os) for 7 days, dexamethasone sodium phosphate (1 mg, i/m) for 5 days in decreasing dose and methylcobalamine, pyridoxine HCl and nicotinamide (2 ml, i/m) for 3 days, administered parenterally. Animals recovered after 10th day of follow up treatment (Fig. 2, Fig. 3).

In another 2 cases, mupirocin ointment was applied on affected part twice a day for 10 days along with cefpodoxime proxetil (10 mg/kg, per os), prednisolone acetate (0.5 mg/kg, i/m) for 7 days and methylcobalamine, pyridoxine HCl and nicotinamide (2 ml, i/m) for 5 days, administered parenterally. Animals recovered after 7th day of follow up treatment.

Discussion

Acute moist dermatitis has been a common dermatological condition seen in dogs and cats (Sue, 2014). Acute moist dermatitis also known as pyotraumatic dermatitis, “hot spot” affecting mainly young dogs with a higher prevalence in breeds such as St Bernard, Golden retriever, German shepherd and Rottweiler (Birgit *et al.*, 2004 and Holm *et al.*, 2004). A dense coat seems to be a predisposing factor. Pyotraumatic dermatitis is clinically characterised by acute onset with well-circumscribed areas of alopecia with moist, matted hair on the cheek, neck, dorsolumbar region, thighs and flanks. Narasimha and Shwetha (2013) recorded erythematous, swollen, exudative area and alopecia clinically.

The Hb and PCV were found low in4 cases of acute moist dermatitis which might be due to concomitant parasitic infestation, bleeding, malnutrition and chronic inflammation (Stein, 2004; Hill, 2005 and Kintzer, 2014).

The values of ALT and ALP were found higher in 2 cases of

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Fig.1: Alopecia, acute folliculitis, swollen, pruritus, erythematous, exudative and plaque like area in a dog

Fig. 2: On 5th day of follow up treatment showed in a dog

Fig. 3: Complete recovery showing regrowth of hairs in a dog

acute moist dermatitis in present study. It might be due to inflammatory response or excessive circulating amounts of glucocorticoids which were in agreement with the findings of Dulman *et al.* (2015) who suggested the aggravated immunosuppression with glucocorticoid or affecting liver functions in atopic dermatitis. High ALT values suggested treatment with steroids, ketoconazole and other cytotoxic drug therapy (Hill, 2005). High values of total protein were observed in the present study and it might be due to dehydration or overproduction of specific protein in parasitism, chronic inflammation and neoplasms (Hill, 2005; Bertholf, 2014).

A satisfactory resolution of acute moist dermatitis was performed in present study to identify and treat underlying cause and to provide symptomatic treatment. The hairs around the lesions were shaved and cleaning with chlorhexidine gluconate (0.3%), cetrimide (3%) solution was done to remove crusted exudates. Chlorhexidine is non-irritating, has an excellent broadspectrum activity against bacteria, fungi and viruses and long residual effect (Noli and Morris, 2012). Topical application of antibiotic/glucocorticoid preparation like clobetasol propionate 0.025%, ofloxacin 0.1%, miconazole nitrate 2.0%, zinc sulphate 3.0%; mupirocin on the affected part. Mupirocin is an excellent antibiotic exclusively for topical use. However, mupirocin resistance can be plasmid mediated in staphylococci and therefore, it should be used prudently in practice (Werner and Russell, 1999). Systemic administration of broad spectrum antibiotic along with dexamethasone and methylcobalamine, pyridoxine HCl and nicotinamide were also given as an adjunct to topical therapy for a period. The duration of antibiotic treatment depends on the severity of lesion. All the dogs favoured excellent prognosis with 100% recovery.

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