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Successful medical management of superficial pyoderma in a pug: A case report

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Abstract

A one-year-old female Pug was brought to Veterinary Polyclinic, Guntur with clinical signs of erythema, papule, pustules, haemorrhagic lesions, pruritus, generalized alopecia and foul body odour. Based on clinical examination and complementary tests, the dog was diagnosed with superficial pyoderma. The treatment regimen included parenteral antibiotics (Amoxicillin+potassium clavulanate), NSAIDS (melonex), antihistaminics (chlorpheniramine maleate), medicated shampoo (Ketochlor), topical applications (Fucidin ointment) and oral supplements (Vitaderm Best syrup). Significant improvement in skin and coat condition was observed within one week and complete recovery was evident after 45 days of treatment.

Keywords: Pug, superficial pyoderma, canine dermatitis, bacterial folliculitis and medical management

1. Introduction

Skin health in dogs is influenced by management practices such as bathing, grooming and nutrition (Singh *et al.*, 2012) ^[9]. Dermatological disorders are prevalent in canines with causes ranging from parasitic infestations to bacterial and fungal infections (Khurana *et al.*, 2016) ^[4]. Among these, pyoderma is one of the most common bacterial skin diseases, classified as superficial or deep based on the depth of infection (Scott *et al.*, 2001) ^[7]. Superficial pyodermamor superficial bacterial folliculitis primarily affects the hair follicles and adjacent epidermis. It is frequently secondary to underlying conditions such as allergies or endocrine disorders (Bajwa, 2016) ^[2]. Staphylococcus pseudointermedius, a commensal bacterium is the predominant pathogen involved in the pathogenesis of the disease condition (Ravens *et al.*, 2014) ^[5]. Clinical manifestations include papules, pustules, crusts, erythema and alopecia, often described as a "moth-eaten" appearance in short-coated breeds (Scott *et al.*, 2001) ^[7]. Treatment typically involves systemic antibiotics, topical antiseptics (e.g., chlorhexidine), and addressing underlying causes (Bloom & Rosser, 2001) ^[3]. The present case report demonstrates the efficacy of a combined therapeutic approach in managing superficial pyoderma.

2. Case history and clinical findings

A one-year-old female Pug was brought to the Veterinary Polyclinic, Guntur with a one-month history of papules, pustules, alopecia, haemorrhagic lesions and foul odour. Previously the animal was treated with systemic antibiotics and NSAIDS had shown no improvement. Clinical examination revealed pyrexia, enlarged lymph nodes with all other vital parameters remained normal. Haematological analysis indicated anaemia (Hb-10gm%) and other haematological parameters remained within the normal range. Serum biochemistry and liver function parameters were found to be within the normal limits and no organisms were detected in the blood smear examination.

3. Therapeutic Management

The pug dog was medically managed with amoxicillin and potassium clavulanate @10mg per kg body weight intramuscularly once for seven days along with melonex @ 0.2mg per kg body

weight and chlorpheniramine maleate @ 0.5mg per kg body weight given subcutaneously for one week and the affected areas were topically applied with fusidin ointment. Further, supportive therapy include vitaderm best syrup was advised for until recovery. Significant improvement in body condition was noticed within one week after starting the therapy (Figure 2). After first week, tablet cefpet @ 100mg-1tablet once in a day was recommended alongside with supportive treatment. The dog had experienced an uneventful recovery after 45 days of therapy (Figure 3).



Fig 1: Case at the time of presentation



Fig 2: 7th day of treatment



Fig 3: 45th day of treatment

4. Discussion

The dog exhibited generalized lesions including alopecia, erythema and pustules with purulent discharge, predominantly on the head, neck, limbs and abdomen. Post-treatment, marked improvement was observed within seven days with reduced pruritus, pustules and haemorrhagic lesions can be noticed. The present findings were in line with the previous reports (Bloom & Rosser, 2001; Angus, 2009; Ravens *et al.*, 2014; Bajwa, 2016) ^[1, 2, 3, 5], which emphasises the efficacy of combined drug therapy of antibiotic (amoxicillin-Clavulanate), NSAID (melonex) and antihistamine (chlorpheniramine maleate) in successful treatment of pyoderma cases in various canine breeds. Sequential antibiotic treatment was followed initially with amoxicillin and potassium clavulaunate combination and later on cefpodoxime was followed because to reduce the risk of antibiotic resistance (Summers *et al.*, 2014) ^[10]. Topical therapy like fucidin ointment and medicated shampoo was advised to use for twice in a week. Fucidin ointment contains fusidic acid and is a topical antibacterial medication was used as adjunct to systemic antibiotic therapy (Sharma *et al.*, 2013) ^[8]. The dog was monitored for every two weeks and the time taken for complete recovery was 45 days after starting the therapy as per the owner statement without the signs of reoccurrence thereafter.

5. Conclusion

The present case demonstrates that the condition superficial pyoderma in dogs can be effectively managed medically alone with the combination of systemic antibiotics, NSAIDS, antihistaminics, topical antiseptics and supportive care

Conflict of Interest

Not available

Financial Support

Not available

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