

# MANAGEMENT OF SEBACEOUS ADENITIS IN AN ENGLISHBULLDOG

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A 3 year old Englishbull dog was presented with recurrent alopecia, hyperkeratosis and greyish coloured nodules with offensive odour all over the body. All vital signs were normal. Skin scraping examination was negative for mites. Trichogram analysis revealed follicular casts. Definitive diagnosis was done based on histopathological examination. Animal showed improvement in the clinical signs after therapy. Owner was educated about the requirement of lifelong treatment and the possibility of flare-ups during therapy.

**Keywords:** Dog, Sebaceous, Adenitis.

Sebaceous adenitis (SA) is an uncommon skin disease in dogs. The disease is characterised by scales, follicular casts and eventual alopecia. SA can be localised or generalised, with both mild and severe forms. Two forms of SA exist which can be idiopathic or secondary to underlying disease. The latter can occur due to diseases such as demodicosis, feline acne, juvenile cellulitis (puppy strangles) and leishmaniosis (Miller *et al* 2012; Bardagi *et al* 2010). Keratinization defects resulting in sebaceous gland obstruction with resultant inflammation and destruction, have been suggested as a mechanism of SA (Miller *et al* 2012). The present paper reports successful therapeutic management of sebaceous adenitis in a Englishbulldog.

## History and Diagnosis

A three year old English Bulldog was presented with a history of alopecia, scaling,

seborrhoea, grey coloured nodules all over the body along with discolouration of haircoat (Fig.1 and 2). The owner reported that, the animal was treated earlier with ivermectin, antibiotics, and levamisole for 4 months. On clinical examination, all vital parameters were within normal reference range. Haemato-biochemical studies were within normal range. Skin scrapings and tape test were negative for mites and yeast. Trichogram revealed follicular casts (Fig.3). Hence, punch biopsy was done as per standard procedure for histopathological examination. Histopathology revealed middermal lympho-histiocytic to pyo-granulomatous inflammation centered on the adnexal structures with complete destruction of the sebaceous glands (Fig.4). On the basis of histopathological and clinical findings, the condition was diagnosed as sebaceous adenitis.



Fig.1. Scaling and discolouration



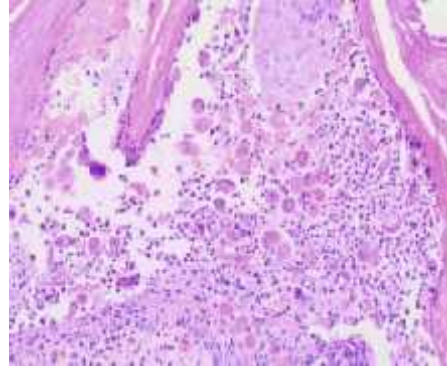
Fig.2: Greyish nodules on dorsum of

of skin all over body



**Fig. 3. Follicular casts observed on trichogram of English Bull dog**

a three year old Englishbulldog



**Fig. 4. Middermal lympho-histiocytic to pyo- granulomatous inflammation**

### Treatment and Discussion

Therapy was initiated with both topical and systemic medicines not only to remove scales and crusts but also to reduce sebaceous gland destruction. Topical therapy was done in 4 steps. Initially the animal was bathed with a keratolytic shampoo to remove scales and debris. In the second step oil treatment was done with baby oil and water (1:1 ratio) being applied all over the body and allowed to remain for 2-3 hrs on the body of the animal. All the unabsorbed oil was then removed from the body. Finally, moisturizing conditioner or humectant spray was applied. This regimen was practiced once a week for 4-6 weeks. Systemic therapy was done with oral cyclosporine@ 10mg/kg b.wt for 4 weeks. The dog was also supplemented with Immolyte® and Nutriccoat® for 4 weeks. After 4 weeks of treatment, animal showed improvement with regression of clinical signs and regrowth of hair.

SA is likely triggered by a cell-mediated response against an unidentified component of the sebaceous gland as also reported by Rybnicek *et al*, 1998. Other possible causes include abnormalities in lipid metabolism or storage, as well as keratinisation defects. Keratinisation defects resulting in sebaceous gland obstruction, with resultant inflammation and destruction, have been suggested as a mechanism of SA as also mentioned by Miller *et al.*, 2012. In the present case, when a combination of both topical treatment of baby oil soaks along with oral cyclosporin was used, a possible

synergistic effect was seen as also reported by Lortz *et al.*, 2010.

However, further investigation is needed regarding the pathogenesis and treatment of sebaceous adenitis.

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