

Case Study

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## Efficacy of Anbioflam Syrup in Wounds and Dermatological Disorders in Dogs

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### ABSTRACT

#### Keywords

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Twenty clinical surgical cases various wounds, dermatitis, other acute or chronic inflammatory conditions of dogs, the dogs operated for surgeries like ear hematoma, castration, spaying, amputation of limb, bone plating, bone pinning, pyometra, resuturing of wounds were selected for the present study. Efficacy of Anbioflam Syrup in acute and chronic inflammation, wounds was studied. All the cases were treated with AnbioFlam Systemic 10 ml daily for 15 days Clinical signs of different clinical surgical cases viz.Redness, abnormal heat, swelling, pain vascular and exudative change, abscess subsided 7-15 days after treatment with Anbioflam Syrup.Complete blood count revealed no significant changes before and after treatment,The bacteriological investigation of these samples revealed that five samples after treatment turned to be negative for bacterial infection.

### Introduction

The AnbioFlam is an ayurvedic anti-inflammatory preparation can be used safely in various wounds, dermatitis, other acute or chronic inflammatory conditions.And other dermatological conditions without any side effects. It can be used fungal and bacterial skin infections such as Ringworm, Eczema, Pyoderma etc. It can also be used for systemic support for faster healing of different kinds of wounds, difficult and chronic skin affections, generalized skin lesions and alopecia.

Anbioflam syrup contains the *Cedrus deodara* wood oil which has significant inhibitory activity against exudative proliferative and chronic phases of inflammation. Also Anbioflam syrup contains *Curcuma longa* Rhizome oil which is antioxidant, anti-inflammatory, antifungal, antibacterial activities (Shinde *et al.*, 1999 and Negi *et al.*, 1999).

[Anbioflam Syrup–Indian Herbs Specialities Pvt. Ltd. Saharanpur.]

## Materials and Methods

Twenty clinical surgical cases various wounds, dermatitis, other acute or chronic inflammatory conditions of dogs, the dogs operated for surgeries like ear hematoma, castration, spaying, amputation of limb, bone plating, bone pinning, pyometra, resuturing of wounds etc. presented to Department of Surgery and Radiology, TVCC and The Bai Sakarbai Dinshaw Petit Hospital affiliated to Mumbai Veterinary College Parel, Mumbai were selected for the present study. Efficacy of Anbioflam Syrup in acute and chronic inflammation, wounds was studied. All the cases were treated with AnbioFlam Systemic 10 ml daily for 15 days. Clinical signs of different clinical surgical cases viz. Redness, abnormal heat, swelling, pain vascular and exudative change, abscess were subsided 7 to 15 days after treatment. Recovery on the basis of clinical signs and hematological & biochemical parameters, skin culture & sensitivity and laboratory tests like CBC, culture and sensitivity, total Viable Count before and 15 days after treatment and recovery were assessed.

## Results and Discussion

Anbioflam syrup can be used for dermatitis and other acute or chronic inflammatory conditions, fungal and bacterial skin infections such as ringworm, eczema, pyoderma etc. It can also be used as systemic support for faster healing of different kinds of wounds, difficult and chronic skin affections, generalized skin lesions and alopecia. The wood of *C. deodara* has been used since ancient days in Ayurvedic medical practice for the treatment of inflammations and rheumatoid arthritis Kirtikar and Basu, (1933). In the present study twenty clinical surgical cases of dogs suffering from having acute, chronic inflammation and wounds Dogs operated for surgeries like ear

hematoma, castration, spaying, amputation of limb, bone plating, bone pinning, pyometra, resuturing of wounds etc. In all the dogs Syp. Anbioflam 10 ml once daily was given for 15 days.

The details of results obtained are as follows.

### Redness

Redness at the site of inflammation was present in all 20 (100%) cases before treatment with Anbioflam and it was reduced in 17 (85%) cases 7 days after treatment with Anbioflam and was absent in 19 (95%) cases 15 days after treatment with Anbioflam. It indicates that Syp. Anbioflam is very useful to reduce the sign of redness in inflammatory conditions. The *Curcuma longa* and *C. deodara* present in the Anbioflam syrup acts as anti-inflammatory analgesic and redness in the tissue is reduced Vijayastelter (2011). *C. Deodara* present in the Anbioflam syrup inhibited neutrophil adhesion to nylon fibers, indicating inhibition of process of margination in the blood vessels Shinde *et al.*, (1999).

### Abnormal heat

Abnormal heat was observed in 15 (75%) cases before treatment with Anbioflam. It was reduced in 7 (46.66%) cases and was slightly present in 8 (54.44%) cases 7 days after treatment with Anbioflam whereas it was totally absent in all 15 (75%) of the cases after 15 days of treatment with Anbioflam. It shows that syrup Anbioflam is effective in reducing abnormal heat which is one of sign of inflammation at the site of inflamed tissues. This may be due to the anti-inflammatory and analgesic effect of Anbioflam syrup which contains *Curcuma longa* and *C. deodara* (Vijayastelter, 2011 and Shinde *et al.*, 1999).

### **Exudative changes**

Exudative changes were present in all 20 (100%) cases before treatment with Anbioflam. They were reduced in 16 (80%) 7 days after treatment with Anbioflam and were absent in all 20 (100%) cases 15 days after treatment with Anbioflam. It denotes that syrup Anbioflam is very effective to reduce exudative changes. This may be due to the mast cell stabilizing activity of *C. deodara* wood oil (Shinde *et al.*, 1999). *Curcuma longa* prevents release of histamine, 5-hydroxytryptamine, prostaglandins, and bradykinin which subsides the edema in the tissue (Vijayastelter, 2011).

### **Swelling**

Swelling was due to inflammation was present in all 20 (100%) cases of dogs before treatment with Anbioflam. It was reduced in 17(85%) cases 7 days after treatment with Anbioflam and was absent in 19 (95%) cases 15 days after treatment with Anbioflam. It shows that syrup Anbioflam is very effective in reduction of inflammatory swelling is dogs.

This indicates that at the site of inflammation *C. deodara* wood oil reduces the number of neutrophils, thus decreasing their phagocytosis action and the release of various enzymes and mediators that make inflammation worse Shinde *et al.*, 1999). *Curcuma longa* inhibits liberation of histamine and serotonin from mast cells in inflammatory reaction and prevents the edema in the tissues (Vijayastelter, 2011).

### **Pain**

Pain was present in all the cases before treatment with Anbioflam. It was reduced in 19 (95%) cases 7 days after treatment with Anbioflam and was completely reduced in all 20 (100%) cases after 15 days of treatment. It

is suggestive of effectiveness of syrup Anbioflam in reducing the pain. This might be due to the anti-inflammatory and analgesic activity *Cedrus deodara* and *Curcuma longa* present in the Anbioflam syrup Shinde *et al.*, (1999) and Vijayastelter (2011).

### **Vascular changes**

Vascular changes were present in 20 (100%) cases before treatment with Anbioflam. They were reduced in 19 (95%) cases 7 days after treatment with Anbioflam and were completely absent in all 20 (100 %) cases 15 days after treatment with Anbioflam. It indicates that syrup Anbioflam is very effective in reducing the vascular changes. *Cedrus deodarais* anti-inflammatory, analgesic and anti-allergic and is effective in controlling exudative–proliferative and chronic phases of inflammation Shinde *et al.*, (1999).

### **Complete blood count**

CBC was performed in all the cases before and after treatment of Anbioflam treatment group which indicated there were no significant changes in the complete blood count 20 days after treatment with Anbioflam.

### **Bacterial culture and antibiotic sensitivity test**

The aerobic bacterial culture for isolation non fastidious bacteria was carried out using suitable media. Identification of the recovered isolates was done based on morphology, colony characters and biochemical tests. The antibiotic sensitivity test of recovered isolates was carried out on Muller and Hinton Agar using nine (09) selected antibiotics by disc diffusion method.

A total 40 swab samples (20 before + 20 after treatment) were studied. The bacteriological

investigation of these samples revealed that five samples after treatment turned to be negative for bacterial infection. Out of total 36 bacterial isolates recovered, 13 were

identified as *Staphylococcus* species, as *Staphylococcus aureus*, *E.coli*, *Klebsiella* spp, one *Proteus* spp. and showed Mixed infection.

**Table.1** The details of Cases included in the present study are as follows

Case No.	Breed	Body Weight	Age	Sex	Disease
1	ND	15 Kgs	Adult	female	Large extensive wound on left medial thigh
2	ND	18 Kgs	adult	female	Wound at the base of right ear
3	ND	16 kgs	adult	male	Wound on scrotum, purulent discharge, necrotic skin of scrotum
4	ND	17.5 Kgs	Adult	Female	Large and deep incised wound on the left thoracic area
5	ND	22 Kgs	Adult	Female	Dehiscence of surgical site of mastectomy
6	ND	20 Kgs	Adult	Male	Extensive injury to the left hind limb with bone exposed
7	ND	6 Kgs	3 months	Male	Injury to the left forepaw, bone exposure, extreme purulence and edema
8	ND	18 Kgs	3 Years	Male	Limb amputation left hind limb, post op hematoma, bleeding and extensive erythema and bruising
9	ND	16 Kgs	7 months	Male	Extensive injury on right forepaw, exposure of the necrotic metacarpal
10	ND	10 Kgs	8 years	Male	Recent injury & deep wound on the muscles of left metatarsals on the medial side.
11	ND	15 Kgs	Adult	Male	Maggoted wound at the base of the tail
12	ND	12 Kgs	9 years	Male	Two extensive wounds on back
13	ND	12 Kgs	15 years	male	Extensive wound separating dorsal & ventral surfaces of right ear, purulent, foul smelling discharge
14	ND	15 Kgs	12 years	female	Two wounds on the rump with deep pockets
15	ND	12 Kgs	adult	male	Purulent wound above left eye extending up to the base of the left ear
16	ND	14 Kgs	adult	male	Extensive wound on right ear involving its dorsal surface and posterior border
17	ND	8 Kgs	6 years	male	Maggot wound on left forelimb extending from dorsal surface to ventral surface of middle two digits
18	ND	6 Kgs	7 months	female	Post-surgical opening of sutures (hind leg amputation) laceration & purulent discharge
19	Labrador	25 Kgs	8 years	male	Deep maggot wound below the anus
20	ND	14 Kgs	10 years	male	Exudative wound with necrotic borders on the left ear involving base of the ear

**Case no.10** Dog having eczematous wound before treatment with Anbioflam Syrup



Recovery 15 days after treatment with Anbioflam



**Case No.19** Dog having septic wound on testicle before treatment with Anbioflam Syrup



Recovery after 15 days treatment with Anbioflam Syrup



**Case No.20** Case of dog having wound at the base of ear before treatment with Anbioflam Syrup



Recovery 15 days after treatment with Anbioflam



Anbioflam Syrup contains the turmeric as antimicrobial (Ammon and Wahl, 1991; Madhyasta and Bhat, 1985; Dahl et al., 1989).

Negi *et al.*, (1999) reported the antibacterial activity of *Curcuma longa* by pour plate method against *Bacillus cereus*, *Bacillus*

*coagulans*, *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli*, and *Pseudomonas aeruginosa*. Sholl *et al.*, (2014) studied the *Curcuma longa* (Zingiberaceae family) and its polyphenolic compound curcumin have been subjected to a variety of antimicrobial investigations due to extensive traditional uses and low side effects. They also reported the antimicrobial activities for curcumin and rhizome extract of *C. longa* against different bacteria, viruses, fungi, and parasites.

In antibiotic sensitivity test, most of the isolates showed the sensitivity to Ceftriaxone, followed by Ciprofloxacin and Streptomycin. Thus, maximum effective antibiotic for treatment in most of cases found to be Ceftriaxone, followed by Enrofloxacin, Amoxyclave and Amikacin. Thus the antibiotics of choice for treatment were Ceftriaxone, Enrofloxacin, Amoxyclave and Amikacin.

### Recovery

Syrup Anbioflam helped best in reduction of various clinical signs of inflammation like redness, abnormal heat, exudation, swelling, pain and vascular changes in the inflamed tissues in various surgical cases of dogs. *Cedrus deodara* and *Curcuma longa* present in the Anbioflam Syrup have resulted in the recovery of various clinical signs in the present study. Negi *et al.*, (1999), Shinde *et al.*, (1999), Sholl *et al.*, (2014) and Vijayastelter (2011) reported similar effects of *Cedrus deodara* and *Curcuma longa* in experimental rats.

### Palatability

The palatability on the basis of acceptability of Syrup Anbioflam by the dogs was evaluated and it was observed that it well accepted by the dogs.

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