I. INTRODUCTION

Importance of dogs as pets has increased and they are considered extension of the family. Large and giant breeds are also kept as watch dogs in the households as well as in farm houses. Bangalore being an important IT capital, it has been found that there has been a sharp rise in the dog population and concern from the owner for their good health.

Pyoderma or cutaneous bacterial infection is one of the common syndromes encountered in canine practice (Mason; 1997, Pradis; 1998). Virtually any primary canine skin disorder and several systemic diseases can lead to pyoderma. (Mason 1997). It is one of the most frequently seen conditions in small animal practice and yet also one of the most frustrating to treat (Craig, 2003).

Primary diseases leading to pyoderma include hypersensitivity, ectoparasitism and metabolic endocrine diseases (Mason, 1997). However there are cases in which a diligent search does not reveal a cause for pyoderma and the disease recurs, which is referred to as idiopathic pyoderma and such pyoderma may require life long antimicrobial therapy (Mason, 1997). It is also suggested that the epidermal barrier is less developed in dogs than in other mammals. Therefore, canine skin may be inherently susceptible to pyoderma than that of other species (Mason, 1991). Despite their frequency of occurrence many pyodermas are misdiagnosed or improperly managed (Ihrke, 1987).

It is well documented in dogs that pyoderma is almost always attributable to the coagulase positive organisms *Staphylococcus intermedius* (Kunkle 1987, Ihrke 1987, Mason 1991). Microbiologic testing techniques now allow laboratory personnel to differentiate *S. intermedius* from *S.aureus*, the major staphylococcal pathogen in humans (Kunkle 1987, Hill and Moriello 1994, Hesselbarth et.al 1994). Gram-negative bacteria such as *Proteus sp.*, *Pseudomonas sp.*, and *Escherichia coli* may be found as secondary invaders of pyoderma (Kwochka 1993). Reports have suggested that coagulase positive staphylococci are normally carried on the hair coat, providing a source of infectious organisms for skin under appropriate conditions (Kwochka 1993).
Perusal of available literature did not reveal any systematic study taken up in respect of managing recurrent pyoderma under Indian scenario although this condition is commonly encountered.

Keeping in mind the recurrent, pleomorphic and idiopathic nature of the disease, the present work was undertaken to evolve strategies for long term management of pyoderma, with following objectives:

1. To study the incidence of pyoderma in dogs.
2. To identify the bacteria involved in pyoderma.
3. To understand antibiotic sensitivity pattern of the isolates.
4. To evolve strategies for long term therapeutic management of pyoderma in dogs.
5. To assess the efficacy of autogenous bacterins in the management of pyoderma.

II. REVIEW OF LITERATURE

2.1 Superficial pyoderma and its clinical appearance

Thoday (1980) divided bacterial infections of skin into two groups, infections that respond to antibacterial treatment and secondary pyoderma (infections in which antibacterial treatment gives limited or no relief). Primary pyoderma comprises juvenile impetigo and “short haired dog folliculitis”. Secondary pyoderma includes chronic infected anal sacculitis and acute moist dermatitis.

Ihrke (1983) described superficial pyoderma as a bacterial infection in which multiple abscesses of extremely variable size are present just below the stratum corneum or within the ostia of hair follicles. The pustular stage is quite transitory in the dog. Consequently a superficial pyoderma should be considered for a differential diagnosis of virtually any pustular, papular or crusting eruption with or without concomitant pruritus.

Ihrke (1987) stated that pyodermas are misdiagnosed and improperly managed because of their pleomorphic nature and resultant difficulty in recognition. He also stated that veterinary surgeons may be satisfied with the presumptive diagnosis of another disease such as atopy, seborrhoea, flea allergy or food allergy and overlook the presence of secondary pyoderma.

According to Kunkle (1987), superficial folliculitis is one of the most common dermatologic conditions seen in dogs. Its clinical appearance is highly variable, but usually papules, erythematous macules, scale, crusts and some focal alopecia are