

Hot Spots

Hot spots or pyotraumatic dermatitis are generally moist, irritated skin disorders that have a variety of causes and normally result in treatment of some kind.

They can easily occur when a dog itches, scratches or licks themselves excessively (i.e. self traumatise) eventually forming a wet scab on the fur.

They are quite common with distinct features and are a form of surface pyoderma (i.e. only the outermost epidermis is affected). However, in some breeds such as golden retrievers, these lesions can be deeper.

Hotspots may develop very rapidly and as might be expected, are more prevalent during hot and humid weather. At this time skin surface is moist and often covered by matted hair and accumulated exudation providing an excellent breeding ground for bacteria.

What to look out for

As previously discussed, hotspots generally occur as a result of self trauma such as excessive licking and scratching. Usually this is initiated as a result of a parasite burden (for e.g. fleas) or allergic reaction (multiple causes). This in turn predisposes the skin to secondary bacterial colonisation, exudation and further inflammation. Lesions typically arise near the site of the primary disease or

cause (for e.g. adjacent to the tail base in anal sac impaction). The disease can be characterised by several events.

To begin with, rapid development of erythematous, slightly elevated plaques which are sharply demarcated from adjacent normal tissues will be seen. These plaques are typically alopecic, eroded and sometimes ulcerated. A purulent exudates then builds up on the skin surface and matts the adjacent hair.

Frequently it is at this stage that owners will present the dog to the clinic unless they have had prior experience with hotspots. Pruritus and noticeable pain on palpation of the area are constantly present.

Environmental conditions and common underlying causes include:-

- Hot humid weather
- Otitis externa
- Atopy
- Flea bite hypersensitivity
- Anal sacculitis
- Ectoparasites (other than fleas)
- Dense hair coat that may not dry out easily or dirty
- Adverse food reaction

It may not be readily apparent as to the cause of the hotspots in individual cases. Diagnosis is reasonably straight-forward and is primarily based on history gleaned from the owner and appearance of the lesions. Lesions are generally not truly infected as the bacteria are only found on the surface of the skin. In general, dogs will transfer bacteria (usually *Staphylococcus intermedius*) from their mouth or nose to the site.

Treatment and Nursing

The treatment of hotspots is normally the same for most cases and response to treatment is monitored and adjusted accordingly. Breed of dog, severity of skin changes and individual patients have an impact on the intensity of the treatment.

- Initially the overlying and surrounding hair should be clipped away to reveal the full extent of the lesion- sometimes this requires sedation or general anaesthetic
- The surface must be cleaned with an antimicrobial wash, such as chlorhexidine, and then gently dried
- The lesions should be thoroughly examined to ensure that it is a surface infection. Indications that furunculosis (multiple boils) is present include a palpable thickening of the lesion, satellite lesions and discharging sinus
- In the majority of cases, concurrent topical anti-inflammatory and antibacterial therapy achieves the most rapid resolution. Also anti-bacterial shampoos may be warranted in certain cases. However, if a

deeper infection is detected, then systemic antibacterial treatment is indicated. This is usually prescribed for a minimum of 3 weeks and 1 week beyond resolution of signs.

- Traditionally topical astringents have been used on the area as they produce a rapid drying of the surface. Nevertheless, it has been shown that they are less effective than glucocorticoids at producing relief for the dog.
- The original reason for the self trauma (if detectable) ie parasite/ food allergy also needs to be treated in order to promote healing and prevent recurrence
- The dog should be re-examined after 3-5 days to confirm that the condition is resolving. Failure to resolve promptly, or recurrence, should prompt a work up for underlying disease
- Bacterial cultures and sensitivities are often used when lesions do not respond adequately to antibiotic therapy
- Occasionally an Elizabethan collar or bandages may be necessary to stop the dog from interfering with the area

Hot spots usually respond promptly to therapy although it may be many months before hair regrowth occurs. However, partial recovery followed by a prompt relapse at the same or adjacent site is common if underlying causes are not identified and corrected.

Intertrigo (Fold Pyoderma)

Another form of surface pyoderma is intertrigo (skin fold pyoderma). It occurs between two folds of skin that become infected when conditions are right such as poor ventilation and hair increasing friction at the site.

These are often seen in certain breeds for example facial folds of brachycephalic breeds such as the bulldog, lip fold problems in spaniels, obese dogs and those with superfluous skin (shar-peis) .Treatment for these problems includes cleansing, as for hot spots, and the use of protectants to reduce skin fold abrasion and protect the skin from secretions. Surgery may be necessary in severe cases.