



Chastain Veterinary Medical Group Pet Health Fact Sheet

Abscesses in Dogs and Cats

An abscess is a localized, encapsulated, accumulation of solid or liquid material. This material represents tissue breakdown products. The material inside an abscess (pus) is generally cloudy and white to off-white to yellowish in color. It is composed primarily of serum, blood, liquefied tissue debris and degenerated or toxic neutrophils (a type of white blood cell) with lesser numbers of other types of white blood cells such as macrophages and lymphocytes.

Abscesses occur when microorganisms, or foreign objects, or both, gain entrance into body tissues. The resultant tissue reaction causes an accumulation of purulent exudates in the tissue, with components as described above. At this early point, the affected area is best described as a cellulitis. If the cellulitis is not quickly resolved, or if the accumulating debris is not promptly discharged to an external body surface, then the body will attempt to wall off the affected area by forming a capsule of fibrin around it. Fibrin is gluey, web-like type of protein that also serves as a main component of scabs. Once the fibrin capsule is complete, the cellulitis is said to have become an abscess.

Progressive increases in the pressure within the abscess cavity can lead in time to rupture of the abscess. However, prolonged delay in evacuation of the contents of the abscess cavity can result in a thicker, tougher, more rigid abscess wall composed of fibrous connective tissue. In this case, healing will eventually require the filling of the cavity by scar tissue. Unfortunately, this does not always result in total elimination of the inciting elements of the abscess; chronic or intermittent discharge of exudates from a draining sinus tract is a potential sequela.

Among dogs and cats, abscesses can occur almost anywhere, but they are most common on the skin, within the anal glands, prostate gland, or mammary glands, and behind the eyeball.

Signs and Symptoms

Clinical signs of an abscess will vary depending on the location of the abscess and the organ system(s) affected. In general, however, all abscesses cause some degree of pain, swelling, redness, heat, and loss of function.

A painful, angry, open wound with material draining out may be visible if the abscess is superficial and has ruptured to an external body surface. Sometimes fever, loss of appetite, and/or painfulness in a particular area are the only signs.

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Often there is some prior history of trauma, fighting, or infection in the affected area. Tissue destruction may be minor or substantial. Even body organs not directly involved in the abscess can be hampered and compromised due to pressure from an adjacent abscess mass.

Diagnosis

Abscesses are usually diagnosed presumptively by physical examination and observation. Often microscopic examination of the abscess contents is necessary in order to confirm that the structure is an abscess and not a similarly appearing tumor, cyst, or granuloma.

Blood testing will usually show abnormalities in the white blood cell counts.

Treatment

Treatment of abscesses centers around identifying and removing the original cause(s), beginning antibiotic therapy, and establishing adequate drainage, if possible. Large abscess and those associated with large amounts of dead tissue may require surgery.

The prognosis for abscesses is generally good, but some abscesses may become complicated by sepsis (blood-borne infection), or chronic, draining tracts. Furthermore, abscesses which rupture internally may lead to peritonitis or pleuritis. In these cases, the prognosis is worse.

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