Causes of Chronic Bad "Kitty Breath"

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Cats are prone to chronic inflammatory diseases of the mouth including gingivitis (inflammation of the gums) and stomatitis (inflammation of the oral mucous membranes).

What causes gingivitis and stomatitis in cats?

There are probably a number of causes of this chronic inflammation in the mouth and gums. It may actually be due to a combination of factors. The three factors which are receiving the most attention are:

Hyperresponsiveness: It is felt that some cats may have a hypersensitivity or allergic reaction to bacterial plaque and are called 'plaque-intolerant.' This results in a disease called lymphocytic-plasmacytic gingivitis stomatitis (LPGS), which affects the entire mouth. In this disease, certain cells involved in the immune system called lymphocytes and plasma cells move into the tissues of the mouth and we see severe inflammation where the tooth meets the gumline. It is this disease which we will focus on in this article.

Another possible cause is an allergy to something else such as food or fleas which may manifest itself as skin and oral lesions called feline eosinophilic granuloma.

Immunosuppression: A cat's immune response may be suppressed for a number of reasons but the most common is viral infections. It is estimated that 15% of cats with chronic oral inflammation are infected with either feline leukemia virus (FeLV), feline immounodeficiency virus (FIV), or both.

Viral or bacterial infections: Feline calicivirus can cause oral lesions, and in some studies, feline infectious peritonitis (FIP) and *Bartonella henselae* have been implicated.

Are some cats more susceptible?

Some researchers feel certain purebred breeds such as Siamese are more prone to this disease, while others feel it is more common in domestic shorthair cats.

Sometimes this disease can develop when the cat is very young. This is called a 'juvenile onset' form of disease. It may occur at 3-5 months when the permanent teeth are erupting and become more severe by 9 months of age.

Cats who are immunosuppressed have a greater tendency to have oral infections which may become chronic.

What are the signs of chronic gingivitis and stomatitis?

Chronic gingivitis and stomatitis can cause severe pain. The animal's behavior may change - irritability, aggressiveness, depression or reclusiveness may be seen. The cat may drool excessively, have difficulty eating or not eat at all. Some cats will go up to the dish as though they are very hungry (which they are) and then run from the food dish because eating is so painful. They will often have bad breath (halitosis) and may not be grooming themselves adequately. Their gums bleed very easily.

How is this disease diagnosed?

During the physical exam, which may need to be done under anesthesia to do it well, multiple lesions are seen. There may be ulcers or proliferative lesions. The lesions can be on the gums, roof of the mouth, back of the mouth, tongue, or lips. The lesions at the gumline surround the whole tooth. Usually, the area around the back teeth, the premolars and molars, is most affected. Sometimes resorption lesions are seen.

Radiographs (x-rays) of the mouth often show moderate to severe periodontal disease.

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In LPGS, a large amount of globulins would be found in the blood since the vast number of plasma cells are producing antibodies (a type of globulin).

A biopsy of the affected areas is often performed to differentiate between LPGS, eosinophilic granuloma complex and neoplasia (cancer). The biopsy would reveal inflammation with a large number of lymphocytes and plasma cells in the case of LPGS. Large numbers of eosinophils would be present if the lesions are caused by eosinophilic granuloma complex.

What is the treatment for chronic stomatitis/gingivitis?

First, let us review what plaque is. Bacteria play a major role in the formation of plaque. Bacteria live on remnants of food in the mouth. When bacteria combine with saliva and food debris in the channel between the tooth and gum, plaque forms and accumulates on the tooth. When bacteria continue to grow in the plaque and, as calcium salts are deposited, the plaque hardens to become a limestone-like material called tartar.

If the chronic stomatitis/gingivitis is due to a plaque intolerance, then it is essential we remove all plaque and keep it off. This is accomplished through:

- Regular dental cleaning and polishing by your veterinarian
- Fluoride application by your veterinarian
- Extraction of teeth with resorption lesions or severe periodontal disease
- Daily home care, including toothbrushing and the application of 0.2% chlorhexidine
- Antibiotics
- Corticosteroids
- Good nutrition, often with vitamin supplements since these cats may not eat as much as they should because of the discomfort

Unfortunately, even with this intensive care, the disease often progresses and the only way to cure the disease and eliminate the very painful lesions is to extract all of the teeth in back of the large canine teeth (fangs). This may appear drastic, but in almost all cases it is the only alternative. In cases of juvenile onset gingivitis, professional teeth cleaning every 2 months and once- to twice-daily brushing at home for the first year or so of their life, may allow them to revert to a more normal status as they age.

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