

GINGIVITIS (INFLAMMATION OF THE GUMS)

BASICS

OVERVIEW

- Reversible inflammation of the gums (gingivitis); earliest phase of periodontal disease (that is, disease of the tissues around and supporting the tooth)

SIGNALMENT/DESCRIPTION of ANIMAL

Species

- Dogs and cats

Mean Age and Range

- Over 80% of pets 3-years-old and older have inflammation of the gums (gingivitis)
- Toy-breed dogs affected earlier in life
- Cats generally are affected later in life than are dogs

SIGNS/OBSERVED CHANGES in the ANIMAL

- Swelling of the gum tissue (known as “gingival tissue”)
- Bad breath (known as “halitosis”)
- Redness or fluid build-up (edema) of the gums
- Variable amounts of plaque (the thin, “sticky” film that builds up on the teeth; composed of bacteria, white-blood cells, food particles, and components of saliva) and tartar or calculus (mineralized plaque on the tooth surface)
- Gum surfaces bleed easily on contact (for example, during play or physical examination)

CAUSES

- Accumulation of the thin, “sticky” film that builds up on the teeth; composed of bacteria, white-blood cells, food particles, and components of saliva (plaque)

RISK FACTORS

- Age
- Misalignment and crowding of teeth reduce natural cleaning mechanisms (seen in toy-breeds; in short-nosed, flat-faced breeds [known as “brachycephalic breeds”]; and others)
- Toy-breed dogs affected earlier in life
- Soft foods
- Open-mouth breathing
- Chewing habits
- Lack of oral health care
- Metabolic diseases (such as uremia [condition in which excess levels of urea and other nitrogenous waste products are present in the blood] and diabetes mellitus [“sugar diabetes”]) may allow more disease-causing bacteria to grow in the gum tissue
- Autoimmune disease

TREATMENT

HEALTH CARE

- Proper dental cleaning—complete oral examination; removal of plaque and calculus from the surfaces of the teeth above the gum line (known as “supragingival” surfaces); scaling and root planing (if needed) the surfaces of the teeth below the gum line (known as “subgingival” surfaces); polishing; flushing the tissues below the gum line (known as “subgingival irrigation”) with an antiseptic solution; postcleaning examination; home-care instructions; and follow-up examinations
- Home dental care (such as toothbrushing, use of specialized dental diets or treats, application of gels or rinses) is important to control accumulation of the thin, “sticky” film that builds up on the teeth (plaque); your pet’s veterinarian will recommend a home-care dental plan for your pet and will provide instructions on using the various home-care dental products
- Rawhide chew strips help to clean the teeth mechanically; they should not be relied upon as the sole method of home care

DIET

- Hard food leaves less lingering material on the teeth than soft food; chewing also helps to clean teeth mechanically; specialized dental diets are available, such as Hill’s Prescription Diet® t/d® (Hill’s Pet Nutrition, Inc., Topeka, KS), which is formulated to reduce plaque (the thin, “sticky” film that builds up on the teeth) and tartar or calculus (mineralized plaque on the tooth surface) and reduce staining; IAMS® Dental Formula is formulated to reduce tartar or calculus (mineralized plaque on the tooth surface) (IAMS Company Inc, Dayton, OH)

SURGERY

- Extraction of retained deciduous teeth (condition in which both the baby tooth [deciduous tooth] and the permanent or adult tooth are present at the same time) and selective extraction of crowded teeth is necessary to improve the health of the mouth and to allow easier cleaning of tooth surfaces

MEDICATIONS

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.

- Lactoperoxidase- and chlorhexidine-containing chemical agents (known as “dentifrices”) are effective in retarding plaque (the thin, “sticky” film that builds up on the teeth)
- Topically applied chlorhexidine, 0.4% stannous fluoride gel, and zinc ascorbate also reduce plaque formation
- Antibiotics generally are not necessary at this stage of disease

FOLLOW-UP CARE

PATIENT MONITORING

- Regular oral re-examinations are necessary, so the veterinarian can determine the proper interval between professional dental treatments and assess the effectiveness of oral home care; professional dental treatment and oral home care can cure gingivitis and help avoid progression to inflammation and infection of the tissues around and supporting the tooth (known as “periodontitis”)

PREVENTIONS AND AVOIDANCE

- Modify behavior to avoid chewing hard objects (such as rocks and sticks) and eliminate repetitive trauma, if possible
- Stress the importance of regular professional dental treatment and oral home care; daily or at least twice-weekly toothbrushing is recommended, using an enzymatic toothpaste or zinc-ascorbic acid solution to remove and retard plaque (the thin, “sticky” film that builds up on the teeth); if the owner is unwilling or unable to brush the teeth, but the patient is manageable, the owner might bring the pet to the clinic for brushing
- Eliminate predisposing factors, such as retained deciduous teeth (condition in which both the baby tooth [deciduous tooth] and the permanent or adult tooth are present at the same time) and crowded teeth

POSSIBLE COMPLICATIONS

- Gingivitis begins when bacteria invade the gums; inflammation results in swelling and reddening of the gums, which also become fragile and bleed easily; these lesions are reversible with professional dental treatment and oral home care; if not controlled at this point, the attached gum (gingiva) and tooth-supporting structures (alveolar bone, periodontal ligament, and tooth root cementum) become involved, signifying the transition to periodontitis (inflammation and infection of the tissues around and supporting the tooth)
- Once periodontitis is established, it generally is considered controllable, but not reversible
- Uncontrolled periodontitis invariably leads to tooth loss

EXPECTED COURSE AND PROGNOSIS

- Professional dental treatment, followed by oral home care, completely reverses gingivitis

KEY POINTS

- Stress the importance of regular professional dental treatment and oral home care; daily or at least twice-weekly toothbrushing is recommended, using an enzymatic toothpaste or zinc-ascorbic acid solution to remove and retard plaque (the thin, “sticky” film that builds up on the teeth; composed of bacteria, white blood cells, food particles, and components of saliva)
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