

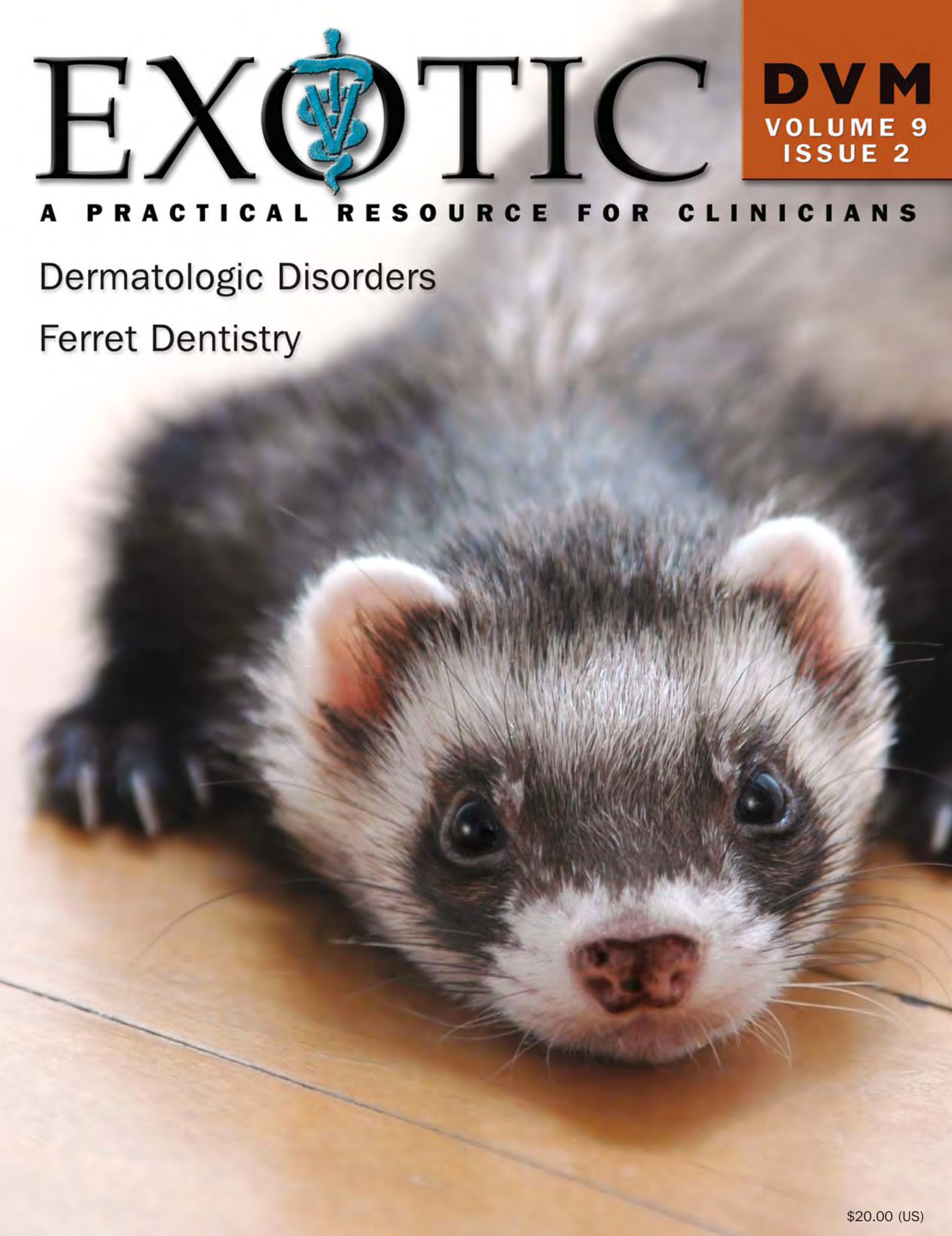
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Dermatologic Disorders

Ferret Dentistry



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Ferret Dental Disorders: Pictorial of Common Clinical Presentations

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Fig 1. Normal: A healthy mouth should have no reddening or swelling, and the gingival margins should fit closely to the enamel surfaces of the teeth. There should be no plaque buildup.

Dental disease is common in older ferrets, just as it is in dogs or cats. Ferrets require routine dental care and prophylaxis, including cleaning, polishing and regular brushing. The author has found that the use of a commercial sealant system (Oravet, Merial Ltd, www.merial.com) works well with the same timetable of re-application as recommended for dogs and cats.

Ferret owners are taught how to brush their ferret's teeth using a malt or poultry flavor commercial pet toothpaste (C.E.T. Enzymatic Toothpaste, Virbac, www.virbac.com) on cotton swabs. Small brushes and swabs sold for use in dogs and cats are frequently chewed and swallowed by the ferret and are not recommended. To avoid being bitten, the author discourages owners from placing their fingers in their ferret's mouth during toothbrushing.

Ferret dental and periodontal disease can be categorized according to similar stages observed in dogs and cats. Periodontal disease is defined as inflammation and destruction of soft tissue and bony structures surrounding and supporting the teeth. If left untreated, it progresses until irreversible damage is done.

Disease progression can be slowed by cleaning the teeth, stimulating the gums and gingiva, and inhibiting bacterial growth. In dogs, *Porphyromonas* spp. are responsible for much of the bacterial destruction of tissue, and a vaccine has become available. Studies of oral bacteria, pH, gingival enzymes and effective control need to be conducted for the pet ferret. The following is a guideline for evaluating ferret oral health.

Stages of Periodontitis



Fig 2. Stage 1, Gingivitis: Shown is Inflammation of the gingiva due to bacterial deposits known as plaque. Plaque accumulates and becomes mineralized, forming calculus. The main sign of gingivitis is a reddened, sometimes slightly swollen line along the edge of the gingiva.



Fig 3. Stage 2, Early Periodontitis: If gingivitis is untreated and progresses to infection of the gums, tissues and bone surrounding the teeth, early periodontitis is evident. Gumline abscesses may be encountered at this stage. Typically there is swelling as well as some gingival recession or periodontal pocket formation (detected by probing). Up to 25% of the attachment tissues may be lost. Dental radiographs are useful to assess early tissue lesions. Use of topical dental anesthetic (e.g., lidocaine gel, Henry Schein) may be needed to probe teeth and gums at this stage.

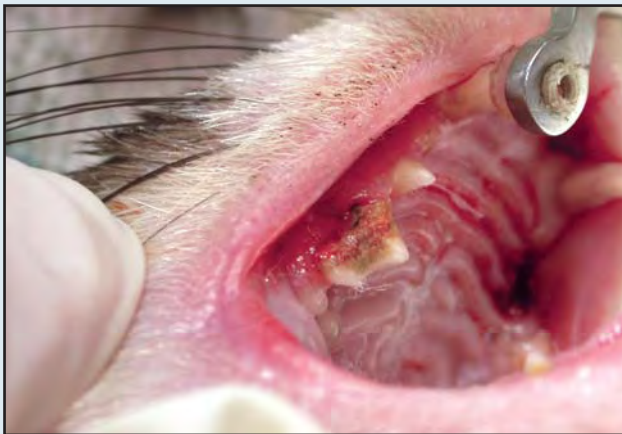


Fig 4. Stage 3, Moderate Periodontitis: Bleeding may occur during dental probing. Affected teeth may have up to 50% loss of attachment to surrounding bone. Roots begin to be exposed. Abscesses around the tooth roots and accumulations of food may be found in and around the teeth. Most ferrets require light sedation, analgesia and topical dental anesthetics for a full oral examination at this stage.



Fig 5. Stage 4, Advanced Periodontitis: There is more than 50% loss of attachment of the tooth, often with blood and pus surrounding the tooth and its root. Gums are usually quite sensitive, and full examination requires sedation and/or anesthesia with analgesia. Teeth may be lost at this stage even if periodontal treatment is initiated following protocols used in dogs. Radiographs are often needed to evaluate tooth viability at this stage. Teeth may also be loose.

Ferret Dental Cases



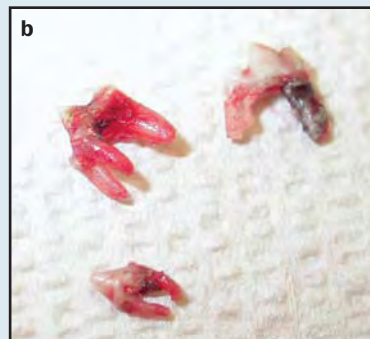
Fig 6. This 5-year-old ferret shows early signs of mild gingivitis with mild accumulation of plaque. The tip of the canine tooth is blunted. Blunting or tip fractures of canine teeth is common in pet ferrets.



Fig 7. Although the canine teeth are fractured, they are still considered viable as the pulp is not exposed and the teeth are not discolored. Radiographs would confirm root viability.



Figs 8a-c. All images are from the same ferret: **a)** The left maxillary canine tooth is discolored and necrotic with root abscess. Note discoloration of the gums near the gloved finger; this area was slightly soft to the touch. Gingivitis and plaque are considered moderate to severe. **b)** The tooth was surgically removed using a gingival flap technique, debridement and flushing of the root cavity with warmed saline. The pocket was packed with hemostatic absorbable gelatin sponge (Gelfoam, Pharmacia) and 0.1 ml of 400 mg/ml ampicillin (Polyflex, Fort Dodge) and sutured with 4-0 Vicryl. The remainder of the teeth were scaled and polished with a prophylactic paste (Zircon-F, Henry Schein) and painted with a fluoride solution (Fluoride Phosphate Topical Solution, Henry Schein). **c)** In the necrotic canine tooth, note discoloration and distortion of the tooth root (scale shows measurement in inches).



Figs 9a,b. **a)** Shown is a necrotic mandibular carnassial tooth (see also Fig 4 from the same ferret with a blackened area opposite the maxillary arch where another necrotic tooth had been). **b)** Three teeth were extracted from this patient.



Figs 10a,b. a) This is an awake ferret at examination. Note the fractured maxillary right canine tooth, discolored maxillary incisors with gumline abscesses, and plaque and irritation extending above the incisors up to the lip. b) The gingiva is sutured following extraction of the teeth.

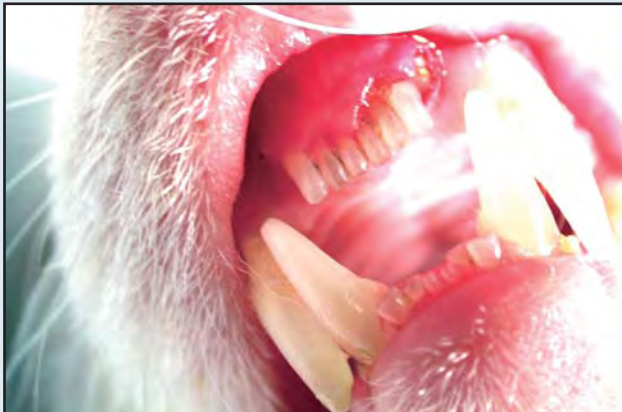


Fig 11. An abscess is evident in the gum between the upper left maxillary incisor and canine tooth. All incisors are loose, translucent and/or discolored. The right maxillary canine tooth has a broken tip. The right mandibular canine tip is blunted, and all mandibular incisors are worn.



Fig 12. This ferret presented with loss of incisors. Note gingivitis in the remaining maxillary left incisor and canine tooth.



Fig 13. An awake ferret is missing maxillary teeth with grade 3-4 periodontitis of opposing mandibular teeth. This ferret was presented primarily because of anorexia.



Fig 14. Moderate plaque is seen in a 5-year-old ferret presented at an annual examination.

All ferrets illustrated here were 5 years of age or older when presented for an annual examination or surrendered to the Washington Ferret Rescue & Shelter housed at the author's clinic. Many images were obtained without sedation of the patient.

Clinical

Results

Naturally



Uses for HEALx from the Exotic DVM Forum

HEALx for itchy ferrets

"In some ferrets with itchy skin we have been using HEALx Sunshine Factor and in some cases Booster HEALx if there is any infectious suspicion. I suppose their content of Omega 3 and 6 together with vitamin A and E help with any problem affecting skin. Apart from that, they get great fur and accept it amazingly well. We use a daily dose of 0.3-0.5 ml/kg. "

*Sergio Sarmiento Valiente, DVM
Exoticos Vet Clinic, Spain*

"We see the same results here with improvement in pruritus and coat quality—and many of our ferrets have been on it for over a year on a daily basis—most of them accept it readily out of a syringe, bowl, or off a finger."

*Thomas Bankstahl, DVM
Parkway Small Animal & Exotic Hospital*

HEALx a possible help with kidney disorder therapy

"During the last 6 months we have done some research on 15 ferrets with kidney disorders while using Booster as part of their

therapy; no side effects were seen at a dose of 0.3-0.5 ml/kg daily.

We were more concerned about the side effect of antibiotics and anti-inflammatory drugs as most of the patients were showing from severe to moderate dehydration. We have started using Booster as part of the protocol for many sick mammals and, as combined with other drugs, it is hard to tell how much it does help. I can only say that we saved the lives of some animals with blood values similar to the ones that did not make it in the past."

*Sergio Sarmiento Valiente, DVM
Exoticos Vet Clinic, Spain*



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