

what's the take-home?

INSIGHTS FROM CLINICAL CASES . PRESENTATION

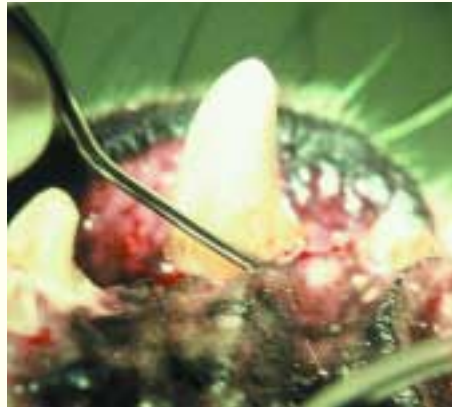
History. In addition to the presence of significant plaque, calculus, and oral malodor, the patient had had several intermittent episodes of sneezing with nasal discharge, and the owner could not determine whether the discharge was bilateral or unilateral. These episodes responded moderately to oral systemic antibiotic administration. While the patient was on antibiotics, the halitosis and appetite would also improve but all signs would return on completion of the antibiotics.

Examination. Vital signs, heart, and lungs were normal. Preoperative bloodwork was within normal limits (**Table**). Standard anesthetic protocol (preoperative medication, induction, intubation, IV catheter and fluids, monitoring, and pain management [preemptive and peri- and postoperative]) were provided (details available on request).

PREANESTHETIC BLOOD VALUES*

Variable	Result
Albumin	2.94 g/dl
Alkaline phosphatase	70 IU/L
Alanine transaminase	72 IU/L
Amylase	902 IU/L
Blood urea nitrogen	19.1 mg/dl
Calcium	10.03 mg/dl
Cholesterol	158.4 mg/dl
Creatinine	0.77 mg/dl
Glucose	124 mg/dl
Phosphorus	2.87 mg/dl
Total bilirubin	0.13 mg/dl
Total protein	6.31 g/dl
Globulin	3.37 g/dl
Sodium	144.1 mEq/L
Potassium	8.16 mEq/L
Chloride	116.1 mEq/L
Packed cell volume	34%

*All values are within normal ranges.



Dental examination using a periodontal probe, such as a 1/23, revealed copious plaque and calculus on the surfaces of most teeth and focal areas of minimal to moderate attachment loss (periodontal pockets and/or gingival recession with root exposure) up to 3 mm in several areas.

A deep, bleeding pocket at the palatal aspect of the right upper canine (no. 104; **Figure**) and bleeding out of the right nostril were found. Gentle water flushing confirmed communication between the pocket and the nasal cavity, which was diagnosed as an inapparent oronasal fistula. A moderate-sized (4-mm) pocket was also noted at the palatal aspect of the left maxillary canine (no. 204).

continues

Recurrent Nasal Infections in a Dachshund

Robert B. Wiggs, DVM, Dallas Dental Service Animal Clinic, Dallas, Texas

A 9-year-old, neutered male dachshund with a history of halitosis was presented for a thorough dental cleaning and workup.

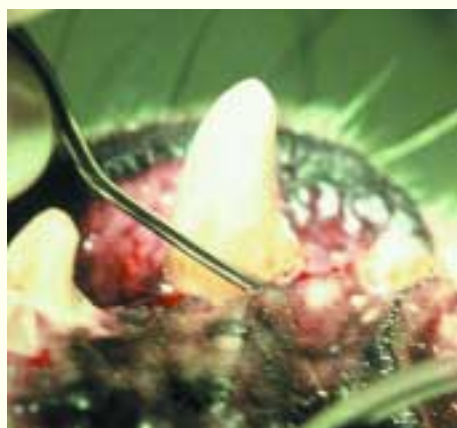
ASK YOURSELF . . .

What is the most appropriate therapy for this patient?

- Immediate stabilization and recovery, pending magnetic resonance imaging to determine possible presence of a tumor and the level of tumor extension
- Complete dental cleaning of all crown surfaces with subsequent recovery and regular administration of systemic antibiotics
- Complete dental cleaning of all crown surfaces and closed root planing of all pockets; also placement of an osseopromotive substance in the deep palatal pocket at no. 104
- Complete dental cleaning and appropriate periodontal therapy (crowns and subgingiva); surgical extraction of no. 104; postoperative pain and antimicrobial management; scheduled follow-up examinations
- Complete dental cleaning and appropriate periodontal therapy (crowns and subgingiva); obtain owner permission for extraction; surgical extraction of no. 104; postoperative pain and antimicrobial management; scheduled follow-up examinations

Correct Answer: E

An inapparent oronasal fistula is a potential complication of untreated periodontal disease. These fistulas occasionally present as large, gaping holes with extensive loss of gingiva adjacent to where a tooth was once present, or they may be inapparent with few other clinical signs. The alveolar bone on the palatal aspect of these



roots, especially in dachshunds and other narrow-faced dogs, can be very thin and compromised even with minimal signs of attachment loss elsewhere in the oral cavity.

Probing for Pockets

All tooth surfaces must be probed for pocket formation, but especially at the palatal aspect of

TAKE-HOME MESSAGE:

Prevention and early detection are very important. All tooth surfaces must be probed for pathologic periodontal conditions and pockets—especially the palatal surface of the maxillary canines. Repair of inapparent oronasal fistulas must be tension-free.

the maxillary canine. Once the bone is lost and the fistula has formed, there is no other choice but to extract the tooth and attempt to close the extraction–fistula site. More advanced attempts at guided tissue regeneration with barrier placement may work on a small defect, but generally speaking, any material simply packed into the defect will be lost with the next good sneeze.

Just cleaning the crowns of teeth is inadequate, even in cases of mild periodontal disease with shallow pockets. In fact, in some small dogs as young as 4 years of age, the tooth may be quite firmly attached, which highlights the importance of dental cleaning and probing in small-breed dogs beginning at 1 to 2 years of age.

Not Necessarily a Tumor

Although some bone loss leading to a fistula may be due to an aggressive oral tumor, this diagnosis is less likely, especially in breeds—such as dachshunds—in which inapparent oronasal fistulas are common. However, if therapy is unsuccessful or if there is any indication

of other pathologic conditions in the region, histopathologic study is warranted.

Repair Techniques

Repair must be tension-free because of the constant pressure respiration can put on the flap. Owners should be informed that small, persistent openings may occur and may require additional surgery in the future. A simple mucoperiosteal flap with adequate release of tension by excising periosteal fibers is usually sufficient. Larger inapparent oronasal fistulas that have inadequate amounts of attached gingiva on the labial surface for a single mucoperiosteal flap may require a more advanced procedure. A double-flap technique using one flap from the adjacent palatal mucosa may be necessary.

It is essential to obtain the owner's permission for the procedure, regardless of how necessary the treatment may be. ■

See Aids & Resources, back page, for references, further reading, and contacts.



Coming soon to these pages...

- Atopic dermatitis
- Extending credit to clients
- Feline hyperthyroidism
- Cranial cruciate ligament repair
- Fluid therapy
- House soiling in the older dog
- Anal saccullectomy
- Incorporating dentistry into practice

Plus, of course, Capsules, Drug Hotline, Make Your Diagnosis, What's the Take-Home? and more!