

Managing Oronasal Fistulas

Jaclyn Polhamus, RVT, VTS (Dentistry)

Abby Pet Hospital

Fresno, CA

What is it and how does it happen?

An oronasal fistula (ONF) is simply a defect in the tissue and bone of the maxilla resulting in the communication between the oral and nasal cavities. Most commonly seen on maxillary canine teeth, an ONF is a defect rostral to the mesial root of the maxillary third premolar. A defect distal to that is an oroantral fistula. ONFs are most commonly diagnosed in older, small breed dogs like Daschunds, Poodles, and Maltese, however can also be found in larger dogs and cats.

Although there can be a number of causes, including trauma, malocclusions, foreign body or neoplasia, oronasal fistulas are usually a result of severe periodontal disease. This infection “eats” away at the thin sheet of bone that separates the oral and nasal cavities.

Symptoms of an oronasal fistula include sneezing, severe halitosis, chronic hemorrhagic and/or purulent nasal discharge, and anorexia. A large palatal periodontal pocket can be found on exam under general anesthesia using a periodontal probe, and there will usually be blood visible from the corresponding nostril. Intraoral radiographs should be taken to rule out other causes besides periodontal disease, and to assess the extent of the disease.

How is it fixed?

The only course of treatment for oronasal fistulas is exodontics. Antibiotic therapy will usually help lessen some symptoms; however this is not a long term answer. Extracting the diseased tooth or teeth, debriding the necrotic tissue and bone, and closing the defect without tension is the standard treatment for ONFs. Full thickness mucoperiosteal flaps are typically adequate to close these defects provided the flap is large and loose enough, and the edges of the flap have been freshened to provide a nice epithelial edge.

Chronic or larger fistulas can present a challenge to close especially since the tissue continues to “shrink up” after repeated attempts at closure. In these cases, advanced double-flap surgical techniques, either the palatal inverted and buccal sliding flap or the palatal and labial buccal pedicle flap, may be used to close the defects.

References

Niemiec, BA. (2010). Small Animal Dental, Oral & Maxillofacial Diseases. London, UK: Mason Publishing Ltd.

Holmstrom SE, Frost Fitch P, Eisner ER, (2004). Veterinary Dental Techniques for the Small Animal Practitioner, ed.3, Philadelphia, PA: Saunders.