

Managing Dental Disease in Dogs and Cats: It is All About Consistency

Abstract

In veterinary dentistry, the concept of preventive medicine is well known but under-utilised. The prevalence of dental disease in dogs is greater than 80%, and 24% in cats. One issue to consider is the idea of preventive dental care in dogs and cats. Is it genuinely preventable, or is it more accurate that we manage dental disease in our patients? Management of dental disease requires a team approach between the pet owner, the pet, and the veterinary staff. This paper discusses three actions needed to develop a management plan for veterinary dental patients.

Introduction

In veterinary dentistry, the concept of preventive medicine is well known but under-utilised. The prevalence of dental disease in dogs is greater than 80%, and 24% in cats.^{1,2} The goal of preventive medicine in human medicine is to help people stay healthy. In her article on the need for coverage for preventive care, Amadeo³ proposes that dealing with a disease before it becomes severe can help keep medical costs low. More importantly, preventive care keeps people productive, which leads to improved quality of life. In the United States, dental cleanings fall under the umbrella of preventive care, but for many, it is a luxury due to the expense and lack of comprehensive coverage.

In veterinary medicine, while the concept of preventive medicine is well known, there are areas where it is under-utilised. In 2006, the United Kingdom passed the Animal Welfare Act 4. The Act lists five welfare needs for animals. The five requirements are 1) for a suitable environment, 2) for a suitable diet, 3) to exhibit normal behaviour patterns, 4) to be housed with, or apart from other animals, and 5) to be protected from pain, injury, suffering, and disease. Preventive medicine protects these needs to improve the quality of life for pets. Veterinary dentistry is one service where prevention can make an impact.

One issue to consider is the idea of preventive dental care – is it genuinely preventable or is it more accurate that we manage dental disease. Management of dental disease requires consistent contact with the patient and the pet owner. Constant contact provides the pet owner and patient with education and support. This paper will discuss three actions needed to develop a management plan for veterinary dental patients.

Increase Your Knowledge of Dental Disease

With dental disease being one of the most common conditions encountered in veterinary practice, having a solid understanding of oral anatomy and disease is paramount to provide successful patient treatment. The World Small Animal Veterinary Association (WSAVA) published the WSAVA Global Dental Guidelines. Niemiec *et al.*⁵ noted that in many veterinary schools, dental education was incomplete, and many graduates enter practice with minimal dental knowledge. Continuing education beyond veterinary school is required to provide professional dental treatment to our patients. Greenfield *et al.*⁶ ranked knowledge and skills veterinarians needed for new graduates entering practice. Of the 35 skills and knowledge surveyed, dentistry was number 28. While

dentistry was low on the list, it does show its importance to the services provide by the practice.

If there are gaps in dentistry knowledge and skills, it is recommended that veterinarians and staff members participate in lectures and hands-on training which are available globally and digitally. The baseline training needed to provide high-quality dentistry is the Comprehensive Oral Health Assessment and Treatment (COHAT). The COHAT is an eleven-step process that takes the patient from the awake oral exam, the anaesthetised oral exam with charting and dental radiographs to treatment and recovery⁷. It is essential that veterinarians and staff are honest with their level of comfort with dental procedures and seek help through training or referring patients to a dental specialist.

Building Communication with the Pet Owner The Owner-Animal-Environment Triad

One crucial component of designing a successful dental prevention programme is to build a supportive relationship with the pet owner. The Owner-Animal-Environment Triad was developed by Dr. Fraser Hale.⁸ The three elements of the triad interact and can affect the outcome of the treatment and management. In terms of the owner – while we as patient care providers have opinions on how the case should turn out, we must not lose sight of the owner's role in the long-term success of the plan. Pet owners must be directly consulted and make decisions that align with the reality of their situation.

The pet/animal in the triad is the recipient of the treatment. The staff must familiarise themselves with the pet's behaviour and relationship with the owner. In what conditions is the pet most cooperative? Can they be directly handled? What is the patient's medical or anatomical considerations? Lastly, the environment should be considered in its impact on recovery and follow-up care. If medications or special diets need to be introduced, other pets that are in the household need to be considered.

Dental Care Strategies

Each patient needs to have their dental care programme individualised based on their previous dental treatments, age, and systemic conditions. According to the American Animal Hospital Association (AAHA) Dental Guidelines,⁹ dental care strategies need to begin with the first visit and continue throughout the patient's life. Recording the oral exam and treatment using a dental chart provides a history of disease conditions for that patient. Follow-up visits and procedures are based on the disease trends of that patient. For older patients, regular health screenings, including lab work, are necessary to rule out systemic disease which may affect anaesthesia protocols for that patient.

In contrast, patients with systemic disease can be affected by the concurrent presence of dental disease. Minimally, an awake oral exam with a prevention strategy should be performed during the yearly exam. The AAHA Dental Guidelines also note that when a patient is examined on every visit, dental disease can be identified at an earlier stage with treatment causing minimal discomfort to the pet. Using the pet owner's dental health can provide a bridge when educating on oral health and treatment.

Obstacles to Dental Care

The two top reasons a patient is reluctant to allow their pet to be treated for dental disease is cost and fear of anaesthesia.¹⁰ Performing regular oral exams can lower the cost since the veterinarian is not returning a mouth with severe disease back to normal. These situations cause the patient to be under anaesthesia for an extended period, and even more so if the veterinarian does not have the skills to perform the needed procedures. It is frustrating for all involved. Of course, many times, the disease can be hidden until you perform an oral exam under anaesthesia and take full-mouth radiographs.

Communication is the key to overcoming pet owner resistance. Cost concerns should be addressed at the time of the exam with the presentation of the estimate. What needs to be made clear as an estimate at the time of the exam is an informed possibility of costs for the treatment. The full examination will take place with the patient under anaesthesia, and the pet owner needs to be told that more problems could be found with the addition of the tooth-by-tooth inspection and full-mouth radiographs. Many clinics present the costs in a range of low to high. Getting a phone number where the owner can be reached to review the revised estimate is recommended.

In the pet owners' experience, anaesthesia for a teeth cleaning does not make sense since humans do not require anaesthesia for a teeth cleaning. Dental procedures without anaesthesia are not well tolerated by dogs and cats and are at best a limited procedure because it does not provide a thorough examination, cleaning, and treatment of dental disease. 5,9 Concerns about anaesthesia are best allayed if the veterinarian explains the need for preoperative lab work, diagnostics, and anaesthesia protocols involved with the dental procedure. Defining what each component of the procedure is and the purpose of each component while patiently fielding questions from the pet owner will help the pet owner feel that the treatment planning is in the best interest of their pet.

Follow-up and Home Care

Managing dental disease using consistent preventive strategies will maintain the quality of life for the patient. Following-up with the pet owners and the patient is another opportunity to provide support and educate the pet owner. Follow-up should be delivered any time a treatment has been performed, an awake oral exam with treatment planning has been completed, or preventive home care has been prescribed.

After the Awake Oral Exam

If the oral exam has shown that dental treatment is required and an estimate has been sent home, the pet owner may have further questions. The timeframe for contacting the pet owner can be flexible. If the pet owner was not able to schedule a surgery appointment, contact should be made 24 hours after the examination to schedule, review the estimate, and inquire if there are any questions. If the surgery has been scheduled, a phone call can be made just before surgery date to review the estimate, give drop-off instructions, and field any questions. A member of the surgery team who will be involved with the case would be the best person to handle this.

Post-treatment

Provide oral and written homecare instructions individualised to the patient. Speak with the pet owner and present the findings and treatments before the pet is returned to the owner. Adding visuals such as dental radiographs, pre and post photographs, and the dental chart adds clarity to the presentation. According to the AAHA-AVMA Canine

and Feline Preventive Healthcare Guidelines, a follow-up plan should be individualised to the treatment performed.¹¹ Alert the client to possible side-effects, such as bleeding, coughing, nasal discharge, neurological signs, vomiting diarrhoea, anorexia, or signs of pain. Soft food should be fed either in the form of moistened hard food or canned food. A good rule of thumb is to set up at discharge a recheck appointment 10–14 days after surgery. Call the pet owner the day after surgery to inquire about the patient's condition. Inquire about their ability to give the medication and the patient's tolerance to the medication, and answer any questions or concerns.

At the dental treatment recheck appointment, check the sutured areas for signs of dehiscence or further infection. If the suture sites look healthy, and healing is taking place, resume the patient's regular diet. Go over home care instructions again and revise if necessary. Schedule more recheck appointments until the disease or wound is controlled – monthly to every three months.

Home Oral Hygiene Products

Home oral hygiene products, sometimes known as homecare products, are an essential part of managing a healthy mouth between professional cleanings. The owner must use the product consistently for the pet to benefit from it. Consistency will bring about the best outcome as both the pet and the owner will acclimate to a routine. What makes for successful owner compliance is implementing the Owner-Animal-Environment Triad to help choose the right products that cater to the needs of the pet in a form the owner can give, and the pet will tolerate.

Oral hygiene products are best started when the mouth is the cleanest, which is after a professional cleaning. The goal of therapy is to maintain a healthy mouth by preventing gingivitis, which can turn into periodontal disease. Maintaining a healthy mouth is a daily process as plaque bacteria build up soon after a professional dental cleaning. For patients that have had extractions, oral rinses can be used before more aggressive products are introduced. Products are categorised as active or passive. Active products are products that are applied to the tooth surface by the pet owner – toothbrushing, antiseptics, anti-plaque rinses, and fatty acid supplements. Passive products require little to no pet to owner interaction. Passive products usually have ingredients that retard plaque and calculus – dental diets, textural foods, food additives, or water additives.

Choosing the right products for each patient can be daunting, as there are many to choose from. A place to start is the products recommended by the Veterinary Oral Health Council (VOHC). The VOHC is run by the American Veterinary Dental College (AVDC). Manufacturers voluntarily test their products to prove they retard dental plaque and calculus. Approved products are given the registered seal of the VOHC, which can be used in the labelling of their product. The best place to start is to interview the pet owner to gain a better perspective of the commitment to maintain their pet's oral health, the pet's behaviour, and the pet's daily routine and environment. The results from this interview will help the pet owner and the veterinarian choose products that will provide long-term success. An interview form can be designed in hard copy or digital format and can take place either during the examination or over the phone. Keep the interview short to not infringe on the owner's time. An example interview form can be found here:

<https://docs.google.com/forms/d/12fs42VaW-zu08IT2jM2gbiwy2g2wc4bZ6yHjzUA37Xw/edit?usp=sharing>

When dispensing oral hygiene products, providing a demonstration or reviewing product instructions can ensure the pet owner is comfortable using the product. A phone call 24 hours and 14 days after the product has been dispensed will provide another level of support and confirm the product is being used continuously. Client education and support are the best way to get pet owners on board with providing preventative dental care to their pets. Showing that you care for their pet's wellbeing increases the chance the pet owner will be compliant with the instructions.

Conclusion

Prevention and treatment of periodontal disease is a common issue in veterinary practice. According to Belshaw *et al.*,¹² preventive healthcare consultations are involved, which causes time pressures to the schedule. While it may seem that there are many steps to managing dental patients, these techniques previously mentioned can be used for other veterinary services. To maintain good long-term oral hygiene or treat existing periodontal disease takes input from the veterinary staff, the owner, and the pet. Choosing staff that are excited about dentistry ensures that the patient's needs are met professionally. The combination of practising high-quality dentistry, updating your knowledge and treatment protocols, knowing when to refer, and reliable client support brings about a successful outcome for the patient.

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Jeanne R. Perrone

Credentialed as a Veterinary Technician Specialist in Dentistry in 2006. Owner and facilitator of VT Dental Training which provides consulting and dentistry skills training for veterinary staff. Part-time dentistry technician at Veterinary Medical Clinic in Tampa, FL Adjunct instructor for the BAS VT program in dentistry at St Petersburg College. Career online instructor at Ashworth College for the Veterinary Assisting program. Online instructor of dentistry courses at Vetmedteam.com. Edited and published the book *Small Animal Dental Procedures for Veterinary Technicians and Nurses*, published in 2012 by Wiley-Blackwell with a second edition being published in 2020-2021. Contributor, *Healthcare for Pets* at www.healthcareforpets.com. Dentistry editor - Veterinary Nurse. From 2006-2015 dentistry technician at Tampa Bay Veterinary Specialists in Largo, FL and The Pet Dentist of Tampa Bay in Wesley Chapel, FL. Founding member and former president of the Academy of Veterinary Dental Technicians - A NAVTA Specialty Group which certifies, trains and mentors credentialed technicians to be specialists in dentist. MS Instructional Design and Technology Ashford University, San Diego, CA. A.A.S. Veterinary Technology Parkland College, Champaign, IL. BA Drew University, Madison, NJ.