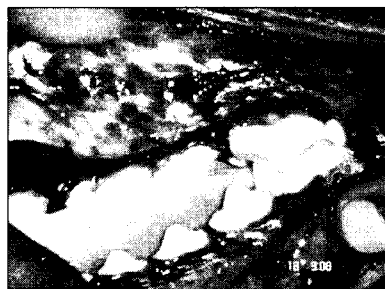


AN INTRODUCTION TO CANINE DENTISTRY AND ULTRASONIC SCALING

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Bad smell in a dog is a problem both for the pet owner and clinician. The bad smell can be from ears, paw, anal sac, or from mouth. Bad smell from mouth (Halitosis) can be from tooth, food retention, megaoesophagus, oral masses, trauma, uraemia, airway diseases, or diet/intake related (pica). Dental tartar is an important cause for halitosis and can be avoided by proper dental prophylaxis and treatment of the condition and this is the importance of dentistry in small animals especially in dogs.



1. Dental tartar



2. Scaling procedure

small animals throughout the veterinarians and pet owners.

Ideal age for first oral examination is at 3 weeks of age when the deciduous dentition is beginning to erupt. First dental examination is performed when the puppy is presented for its initial check up at 6-8 weeks of age and can repeat at every vaccination day. A full only-dental check up scheduled at 7-8 months of age. The common pathological conditions includes hard tissue lesions of the oral cavity such as tumours, gingival hyperplasia, stomatitis, ulcers, abnormalities of tooth structures, tetracycline staining, fractures, uneven wear, periodontal disease and the most commonly encountered problem, the dental caries.

Dental prophylaxis and treatment in veterinary patients includes oral examination, cleaning, home care and the treatment of diseases. The routine

examination includes conscious oral examination, anaesthetized oral examination, cleaning, charting and recording of pathology. Periodontal disease is the most common condition affecting dogs. The infection and inflammation of the gum and supporting tissues of the teeth are caused by bacteria present in plaque and calculus (tartar). Prophylactic treatment to keep the teeth clean is of great importance to prevent dental plaques. Diet is a major factor in the development of plaque and calculus. Soft and sticky foods should therefore be avoided. Hardened tartar removal requires special instruments and equipment, and is usually performed under anaesthesia. Periodontal disease may cause bacteria and toxin to enter the blood stream with potentially deleterious effects on internal organs

The history of veterinary dentistry evolved around the evaluation of horse dentition and the treatment of dental affection. The Chinese practiced equine dentistry as early as 600 BC. The determination of the age of the horse was based on the dentistry. The interest in small animal dentistry started in 1980s and the importance of dental care was more popularized in selected areas in different parts of the country. As far as the practicing clinicians are concerned, the information about the prevalence and importance of dental diseases in pet animals receive little attention. So this article is presented with a view of creating awareness about the importance of dental prophylaxis, diseases and the use of ultrasonic scaling in the management of tartar in

or the poor health may manifest in the oral cavity in various ways and may also exacerbate periodontal disease. So the oral examination is therefore not limited to oral cavity but always include a general physical examination.

Enamel, the hardest substance in the body, is consists of 96% inorganic material, namely hydroxy apatite with 4% water and fibrous organic material. In earlier days, the routine cleaning was done using manual methods utilizing different types of scalars. The equipment for prophylaxis includes the explorer, scalars and curette. Dull instruments fatigue the operator and lead to improper removal of the calculus especially from the base of tooth and impair healing of periodontal pockets. So always use sharp instruments for these procedures. Among the power scalars available, ultrasonic scalars is the ideal one most suited for the removal of supra gingival and sub gingival plaque and calculus. Different types of probes are available with variable shape. Use of sickle-shaped hand scalar in a pull stroke fashion, starting at the gum line and moving towards the tip to scrape away calculus. The pointed tip is useful in some target areas such as the developmental grooves of the pre-molars and molars. It should not be used below the gingival. The ultrasound scalars have gained importance now because of their speed and ease of operation.

Removal of calculus

Calculus is the mineralized deposits above the gum line and removal of large calculus need forceful manual scaling. The use of ultrasonic scalars are excellent means for cleaning without much force and can avoid damaging of adjacent gingival and underlying tooth structures. Severely diseased tooth may some time need to be removed. All ultrasonic scalars mechanically remove the plaque and calculus by vibrating movement of the tip and by cavitation (flow of energized water that cools and flushes debris).

Ultrasonic scalars work best when side of the probe of the scalars is used with overlapping strokes to remove



3. After scaling



4. Ultrasonic dental scalar

calculus. The power and water must be adjusted in ultrasonic scalars. Usually the frequency is adjusted to 30,000-40,000 cycles per seconds with a medium power so that the unit is fracturing calculus away from the tooth when light to moderate pressure is employed as the side of the tip is in intact with the tooth. Water must be used always on the heat generated inside the tooth can damage the delicate pulp tissue within the tooth and do not exceed a cleaning time of 15 seconds on a particular tooth. If there is stubborn area of calculus, clean the area of calculus for 10-15 second, then move on to the other tooth and return after a minute to the stubborn area to resume cleaning. Repeat until the area is clean or use hand instruments. Use always light touch to avoid injury to enamel and the use of the tip of the instrument against the tooth produces a jack hammer effect and can cause significant enamel damage.

The therapy to reduce plaque formation includes toys, treats, raw bone chews, specially formulated food to remove the pellicle layer or plaque. Most of these function mechanically with a mild abrasive action to help to wipe away the thin biofilm of glycoprotein, the precursor to plaque. Other choice is use of enzymes such as lactoperoxidase or chemically altering the bacteria or biofilm.

Finally, if there is no disease, the revaluation with oral and dental examination can be done in every 12-18 months and if periodical disease suspected, it can be done in every 6 months. The professional cleaning is needed or warranted if the home care is not provided.



VETERINARY PRACTICE TOMORROW

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