

Equine dentistry in ambulatory practice (from routine procedures to the moment of referral)

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The majority of dental work in equine ambulatory practice consists of routine oral examinations and dental treatments. Both examination and treatment are most important in maintaining a healthy oral and dental condition. Extraction of loose deciduous caps and wolf teeth in young horses and loose elements in old horses can easily be done in ambulatory practice. Also diagnosis and first treatment of periodontal disease due to diastema can be performed in the field.

Essential for a proper oral examination are a full mouth speculum, a head stand or dental halter, a good light source, a mirror or oral endoscope and sedation. Small instruments such as dental probes, explores, picks and scalers can be used for periodontal, pulp and caries evaluation. After examination, findings should be registered on a dental chart or treatment form.

A dental treatment stands for balancing the mouth to maintain or create even pressure and equilibration between the incisors, cheek teeth and temporomandibular joints. During treatment one should only remove dental tissue where this is necessary. Teeth should be treated as minimal invasive as possible but what is necessary needs to be done. Sharp points, hooks, ramps and protuberant parts should be reduced creating a functional and comfortable movement between the upper and lower jaw. After treatment it is important that the occlusal surfaces of the upper and lower jaw fit well together during lateral movement of the mandible. If the mouth is not correctly balanced, too much pressure might be created between one or more cheek teeth and their opponents. This will cause the teeth to move within their alveoli, resulting in an uncomfortable mouth after treatment. In extreme cases uneven distribution of pressure can cause sagittal fractures or apical inflammation. Contact between occlusal surfaces during lateral movement can be checked visually using a cheek retractor while manually moving the mandible from side to side.

Easy extractions are generally performed in the barn. In young horses deciduous caps of incisors and premolars can be easily extracted using dental picks and forceps. Sometimes it is useful to use a dental spreader. It is recommended not to remove caps too early when not necessary. One should make sure not to leave fragments behind after extraction. When removing a wolf tooth it is best to give the patient a local block. This increases success rates in removing the tooth completely. After extraction of a wolf tooth, the small alveoli should be checked with a mirror when not sure if the entire tooth root has come out. If necessary a small curette or drill can be used to extract the last pieces.

When diagnosing periodontal disease in an early stage the first treatment should be focussed on balancing the mouth correctly. At the same time the diastema should be cleaned using dental picks, a small forceps and water under pressure. In severe cases, a diastema can be widened with a relieve cut. Next the deeper parts can be cleaned using a Hedstrom file. Calcium hydroxide or chlorhexidine gel can be left in the depth and afterwards the opened diastema can be filled with compression material. Deep pockets can also be cleaned, disinfected and filled with compression material. Diet changes can be beneficial to horses having difficulties eating due to periodontal disease. When performing relief cuts, precaution needs to be taken not to thermally damage or expose pulps during the procedure. Therefore, this treatment will be most successful under dental scope guidance and water cooling.

When encountering a more serious problem related to the oral cavity including the sinuses, it depends on different factors to decide to continue working on the patient or rather refer the horse to a more experienced colleague. An oral examination including imaging with an oral endoscope and X-rays can be performed in the field and can be valuable in making a correct diagnosis. Also minor surgeries might be performed in ambulatory practice. Advanced cases such as difficult extractions, fractured elements, open pulps, EOTRH, jaw fractures, sinus trepanations and oral tumors, are best referred to be treated by someone who is properly trained in performing these kind of procedures.