

HOW TO DO A STANDING ORAL EXTRACTION OF A CHEEK TOOTH IN HORSES?

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The goal in modern (equine) dentistry is to preserve teeth as much as possible. Since endodontic treatment in horses still has a lot of technical limitations, removal of teeth is still important. In case conservative treatment remains unsuccessful, exodontia should be applied. During

the second half of the twentieth century most cheek teeth were removed under general anaesthesia using a repulsion technique. It is generally accepted that this technique has a high incidence of complications. For this reason, oral extraction has, again, become the technique of first choice.

Indications for extraction of cheek teeth are: retained deciduous teeth, fractured teeth, loose teeth, severe periodontal disease, trauma to the mandibula or the maxilla, supernumerary teeth, discarded teeth, displaced or malaligned teeth and apical abscesses.

As with all dental procedures, client communication and education is very important. The client needs to fully understand the long-term implications of tooth extraction and full client commitment in the long-term follow up cannot be overemphasized.

Before starting the extraction, the following aspects of the procedure should be checked: the best method to remove the affected tooth, depending on the age of the horse, the condition of the exposed clinical crown and the localisation of the tooth to be removed. All necessary equipment has to be available and ready. A quite environment, a sufficient amount of time and 2 assistants are very helpful. Broad-spectrum antibiotics and non-steroidal anti-inflammatory drugs have to be administered before starting the procedure. If any other dental procedure should be performed, such as

floating the teeth, they should be done before starting the extraction procedure. And last but not least, all ancillary diagnostic techniques should be used to identify the correct tooth to be removed and to check correct placement of the extraction equipment.

Once it is decided which technique to be used and once all preparations are executed, the procedure can start. The first step will be a good sedation of the patient. For this purpose, the author uses an alfa-2-agonist in combination with an opioid. During the procedure, a continuous intravenous perfusion with an alfa-2-agonist is administered. The sedation can be combined with local nerve blocks. The use of nerve blocks is a personal choice. Local nerve blocks seem to vary in their ability to relieve pain, probably due to the skills of the person performing them and due to possible other innervation pathways of the tissues being worked on. Personally, I try to combine a good sedation with as much of local anaesthetic techniques. For this reason, the different local nerve blocks that can be used during extraction, will be covered in depth.

During the procedure, the horse should be placed in a stand with the head suspended in a metal reinforced dental halter. Alternatively, the head can be placed on a headstand. A bright headlight is necessary during the complete procedure.

Oral dental extraction of a cheek tooth in a horse includes the following steps: elevation of the gingival margins, loosening the rostral and caudal periodontal attachments by careful application of molar spreaders, correct placement of the molar extractor to further break down the periodontal ligament and to loosen the tooth, extraction of the loosened tooth by using a fulcrum to lever the affected tooth out of its alveolus, control and curettage of the alveolus, if indicated post-extraction radiographs should be taken and the procedure can be finished by sealing the alveolus. Oral extraction can be very difficult and time consuming. Provide at least 2 hours for the procedure and do not try to go 'a little bit faster'. The risk of breaking the affected tooth with applying more force is the most important complication of oral extraction. Should this happen, the procedure has to be finished by elevation the piece of the tooth left in the alveolus with dental picks or it has to be removed by repulsion. This can



either be done on the standing horse or under general anaesthesia.

The aftercare following a successful oral extraction is minimal. Non-steroidal anti-inflammatory drugs should be administered during the first 3 to 4 days post extraction. In those cases that have a sinusitis, broad-spectrum antibiotics can be given in combination with daily flushing of the infected sinus compartment. A soft diet can be administered during the first days. The mouth of the horse has to be checked on a regular base for the presence of the alveolar sealing material. In case of a premature loss of this seal, the alveolus should be rinsed and sealed again. In most cases, the implantation material will drop out spontaneously or can be (digitally) removed after 4 to 6 weeks.

After dental removal, the opposite (pre)molar will not wear down any longer. Regular dental floating will be necessary to avoid a step-mouth occurring. It is advised to check the horse's mouth twice a year.

Another phenomenon that will occur after molar extraction and that will necessitate regular dental care, is called dental drifting. The drifting can cause the formation of diastema. If not regularly taken care off, this can lead to severe periodontitis and further loss of teeth.

In conclusion: oral extraction should be the first choice to other exodontia techniques in selected cases. It is possible to perform it on the standing sedated horse, avoiding the costs and risks of general anaesthesia. The incidence of complications is relatively low. Nevertheless, owners should be well informed of all possible risks and high costs of any extraction technique. This can prevent many frustrations, as well for the client as for the veterinary surgeon performing the treatment.