**Dental extractions**

Horses spend many hours of the day eating and grinding down forage using their cheek teeth, which wears down the surfaces. Horses’ teeth are termed hypsodont, meaning they continue to erupt throughout their lives to replace the wear from eating. The teeth therefore have a long reserve crown of up to 10cm and diverging roots which secure the teeth into the bones of the skull. Extracting a tooth in a horse is difficult because of the length and strong periodontal attachments. Fortunately new developments in the last few years have meant that minimally invasive techniques allow fewer complications and better outcomes than previously. Tooth extraction in horses is a serious undertaking.

A horse’s tooth may need extracting for a number of reasons. Young horses have deciduous teeth, which are shed between the ages of 2 and 5. Sometimes these teeth need to be extracted if they come loose, or shedding is delayed.

As horses grow, some developmental abnormalities may occur with eruption of the adult teeth. In ponies, especially Shetlands with smaller heads, teeth may become crowded and this can cause them to erupt in different positions and directions. Teeth that are misaligned can result in gum disease and trapping of food and tooth decay. This can result in pain and ultimately infection of the tooth root.

Tooth root infections are the most common reason for having to extract an adult cheek tooth. These can arise for a number of reasons including an infection via the blood flow to the tooth, holes in the teeth, or fractures of the teeth.

Once a tooth is infected or the vital pulp which is the living tissue of the tooth dies, invariably the infection will not go away without removing the tooth.

Signs of an infected cheek tooth in a horse include swellings over the face or lower jaw. If the tooth is an upper cheek tooth, sometimes a snotty nose is present on the side of the infected tooth. Sometimes discharging tracts can open out on the side of the face. Signs can be subtle such as dropping some food during eating. Other times there are no obvious signs until you have the horse’s teeth checked during a routine dental check and the problem is found.

The problem tooth is not always completely obvious. The horse can have a sinus infection, nasal discharge and no signs in the mouth of which tooth is infected. This is often the case when the infection is blood borne, in comparison to an infection from a fracture of the tooth. In these cases diagnostic investigations will often include a thorough oral examination to examine the surface of each tooth in detail and check for subtle signs of disease. X-rays are frequently used too, to examine the roots of the cheek teeth for signs of infection. If the horse has a snotty nose, nasal endoscopy ( a small camera passed up the nose of the horse) will also be carried out to check where the nasal discharge is coming from. In combination these findings often give an idea of the infected tooth and an idea of how complex the extraction procedure will be. Removing teeth can be a prolonged and expensive procedure which owners need to be prepared for.

Extractions of horses’ teeth will most frequently be carried out in a clinic, with the horse sedated and in stocks to allow for a safe procedure. The extraction may take a while, so it is important that the horse is comfortable and not in any pain. Painkillers and antibiotics are given, and like with our teeth a local anaesthetic block is given to numb the area of the mouth where the tooth is being extracted. Every horse will need to be sedated for this procedure to be carried out.

Oral extraction is the best way to remove a horse’s teeth, and results in the fastest recovery with the lowest risks of complications. This is the first line of trying to take out a horse’s tooth. The tooth is loosened at the front and back, then forceps are put on the tooth and it is gently rocked to loosen it further before being lifted out of the socket. If the tooth is very diseased, or fragile the risk of it breaking during this procedure is very high. Sometimes this can make it impossible to remove by oral extraction alone. At this stage the remaining tooth needs to be removed by other means.

Options for removal of a fractured or broken tooth or fragment of tooth include a ‘trans-buccal extraction technique’. This is where a small (1cm) incision is made in the cheek next to the tooth, through which a screw can be placed directly into the tooth to allow its removal. This modern technique is very effective and minimally invasive. If this is not possible another option is repulsing the tooth out with a ‘steinmann pin’. This involves a metal pin being placed through the bone to push the tooth out into the mouth. Both these techniques can be done in specialised clinics with the horse standing sedated and avoid a general anaesthetic. General anaesthetic would be a last resort and only suggested if the horse’s temperament made standing sedation impossible.

Complications from tooth removal include immediate infections, trauma to the surrounding bone and

Sequestration- where a part of the bone of the socket dies off and becomes a source of infection. Complications can also arise if a fragment of the tooth is left behind. The soft tissues around teeth, and the cheek, carry important vessels and nerves which can also get damaged during extractions. Complications can be frustrating to treat, expensive and enduring. These complications are kept to a minimum by having the horse well sedated and carrying out the procedure in a clinic. Aftercare is very important and the socket is packed temporarily to encourage healing and prevent food getting packed into it. This packing will need removed after about a week and the socket carefully examined to monitor the healing process. Antibiotics and painkillers are normally continued for a while following the extraction.

Removing teeth from horses is only done as a last resort, as they heavily rely on their teeth for grinding down forage and maintaining their weight. Once a tooth is removed, the opposite tooth can become overgrown. To prevent this and to keep the mouth well balanced, a dental examination and reduction of the opposite tooth needs to occur every 6 months for the rest of the horse’s life. Maintaining a good mouth and regular thorough dental examinations (yearly) carried out using a gag, strong head light, mirror and sedation are an important aspect of the welfare of horses.

Author: Neaera Fletcher Bsc(Hons) BVMS CertAVP (EM, ED), MRCVS