

Equine Dental Disease

Dental diseases can cause pain when eating or when the horse is ridden. Horses with a painful mouth will often drop their feed when eating, especially their forage. Food may be chewed for a while and then dropped, leading to the identification of balls or long rolls of moist food in the stable. They may noticeably eat on only one side of their mouth, or pack feed in their cheeks. If the problems have been ongoing for a long time then the horse may start to lose weight.

In addition to routine overgrowths discussed in a previous article, many other conditions can be present in the horse's mouth that may cause discomfort. Some conditions may not initially be causing obvious clinical signs, but diagnosis and early intervention can help prevent future problems from occurring. In this article we shall highlight a few of the more common findings seen when examining the equine mouth routinely.

DIASTEMATA

The equine cheek teeth should be tightly apposed and act as one functional grinding unit, but in some individuals a gap ('diastema') can develop between adjacent teeth. Food can be forced into this gap, and in some cases where the gap is narrower at the grinding surface than near the gum be unable to get out.



Figure 1: A cheek tooth diastema – with food pocketing and recession of the adjacent gum.

Trapped food starts to decay and leads to disease of the surrounding gums, which can be very painful and may eventually lead to more severe dental disease, such as infection of the tooth or the surrounding bone. A recent survey showed a prevalence of nearly 50% of horses examined during routine dental examination with diastemata present, of which 40% had significant disease of the surrounding tissues. Some diastemata, however, do not require treatment and may close themselves as the horse ages. Others may require specific remedial dentistry, including cleaning and packing of the gaps or further widening of the spaces to allow the food to naturally empty, and prevent further disease of the surrounding tissues.

PULPAR DISEASE

Equine teeth have pulps, similar to our own, that provide a blood supply to the dental tissues. Unlike our teeth, the horse has no nervous supply to the pulp, and so does not get "toothache", as we do. Disease of the pulp may often go unnoticed if there are no other clinical signs of disease. The ends of the pulps are visible on the surface of the teeth, and with careful examination disease of the pulps can be readily identified - they are a valuable indicator of tooth vitality during investigations into suspected tooth root abscess.

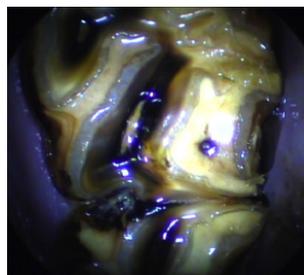


Figure 2: Exposure of the pulp of a cheek tooth – the exposed pulp is in the centre with the yellow centre – compare this to the adjacent black and shiny ones.

In some cases the tooth can be left alone and simply monitored for advancing disease at future examinations. Further investigation of the tooth and surrounding tissues may reveal more significant disease, which may necessitate removal of the tooth, especially if other signs of tooth infection are present. Depending on the tooth involved, facial or jaw swellings may be noticed, which may be painful or warm. In due course they may burst open and malodorous discharge may be seen. The upper cheek teeth at the back of the mouth have their roots in the sinuses, and as a result these swelling may go unnoticed until the burst into the sinus cavities and a malodorous nasal discharge develops.

DENTAL CARIES

Caries is the destruction of dental tissue by bacteria in the mouth, and occurs in a similar manner to people. In the horse caries can be found on the sides of the teeth ('peripheral' caries), or on the 'grinding' surface of the upper cheek teeth, in an area of tooth known as the infundibulum. Peripheral caries rarely causes problems. Infundibular caries are not always significant, however deep cavities may weaken the tooth and predispose to tooth fracture. Caries can readily be observed on routine dental examination, and where necessary specific treatment can be directed.

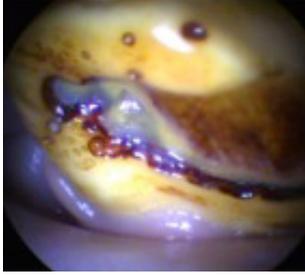


Figure 3: Peripheral caries on the caudal cheek teeth – where the outer layer of the tooth is lost, potentially exposing deeper tissues.

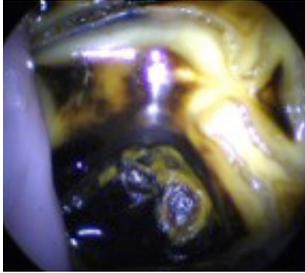


Figure 4: Infundibular caries of the cheek teeth – with food material pocketing within.

In some cases they are secondary to other problems, such as infundibular caries or disease of the pulps. Loose fracture fragments or sharp edges may cause oral pain when eating, but more typically these teeth are encountered when the smaller fragment has already been shed. In some cases the fracture exposes tooth pulps and may lead to deeper tooth infection. The approach to management of fractured teeth varies widely depending on type of fracture.

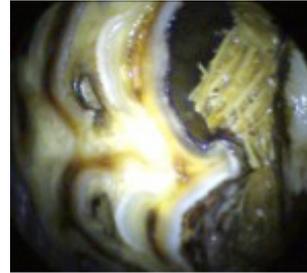


Figure 5: A lateral slab fracture of the cheek tooth – on the right of the picture, with food material pocketing into the empty space.

TOOTH FRACTURES

Traumatic fractures of equine teeth are rare, and it is usually the incisors that are more susceptible to damage from falls, kicks or mouth play behaviour. More commonly, cheek teeth fractures are identified with no obvious history of trauma.

IN CONCLUSION

Dental care is a routine part of the equine veterinary surgeon's work and regular thorough dental examination, often using sedation, will allow problems to be identified early before they become a significant problem.