Tooth Root Abscess

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Tooth root infection in the horse is a relatively common disorder occurring primarily in the cheek teeth. Upper and lower cheek teeth have been reported to become infected at similar rates. The terms tooth root abscess and tooth root infection are synonymous, though a more accurate term is apical infection. Apical refers to the tooth root area and surrounding tissue. The cheek tooth of a horse is very long and often the apical infection includes not only the tooth but also the periodontal ligament, surrounding bone and potentially sinuses. The reported median age of horses with cheek teeth infections is 5-7 years but these infections can occur at any age.

Causes of apical infections are numerous including fractures, developmental disorders, blood borne pathogens, etc. Fractures may be large sagittal (center of the tooth lengthwise) fractures from traumatic incidences or small fissure (deep narrow crack in the tooth) fractures that are not clinically seen until extracted. Developmental disorders include too numerous cheek teeth, which creates overcrowding and can lead to incomplete eruption or impaction of cheek teeth. Also, too few cheek teeth can leave gaps between teeth and increase the chance of periodontal disease. Periodontal disease begins at the gum level surrounding the tooth. Perhaps the most common cause of apical infections is the spread of bacteria in the blood. The horse has a tremendous blood supply to erupting teeth (eruption bumps) and may explain why we see more of these infections in young horses that have rapidly developing tooth roots.

Infections are often suspected by owners prior to an examination. Horse owners may notice a malodorous discharge from the nose or jaw that is not always present. It may be accompanied by a head tilt or decreased appetite but often is not. Another complaint of owners is that one side of the jaw is much more swollen than the other. With these suspicious clinical signs, a thorough oral exam with mouth speculum is warranted to determine if there is a problem with a cheek tooth. This examination should include a dental mirror and probe to evaluate the grinding surface of any tooth that is suspected of infection. Oral exam alone is often not enough. Radiographs of the suspicious area are the best way to determine if an infection is present.

Dental extraction of the infected tooth is most often the necessary treatment for an apical infection. These infected cheek teeth can be extracted orally with few complications if the exposed crown of the tooth is large enough to be grasped and if the tooth does not have a fracture below the gum level. The care of a horse after cheek tooth extraction is relatively simple if there is no sinus involvement with the infection. The empty tooth socket is filled with antibiotic and a plug is made with dental impression material to fill the hole created by the missing tooth. The plug is removed in two weeks and the horse re-evaluated. Long term after care includes routine biannual floating to assure that the opposing tooth does not grow to form a step defect. In young horses the adjacent cheek teeth will slowly migrate to eventually fill the void left by the missing tooth.
Dentistry is an important part of the overall health and well being of the horse. Routine dental re-equilibration (floating) performed by a knowledgeable and experienced practitioner can alleviate pain and prevent many dental disorders. It is recommended that adult horses have their teeth “floated” once per year and that horses younger than 5 years of age have teeth “floated” twice per year. In younger horses it is important to evaluate the development of permanent teeth as well as the shedding of immature teeth (caps). Geriatric horses have their own special needs and should be evaluated annually or more often if colic, choke or other medical concerns arise.