

Chemical ablation of the salivary gland following a occlusion of the salivary duct

History

A 12 year old Warmblood gelding was presented to the Clyde Vet Group Equine Hospital for investigation of a progressive swelling in the left facial region of some three week duration. Two years previously the horse had sustained a wound to the left mandibular region resulting in damage to the salivary duct of the parotid salivary gland. Saliva drained from the wound for a few days before resolving spontaneously. In the intervening 3 years no abnormalities were noted with the salivary gland, duct or the original wound site.

Clinical examination

Examination demonstrated a distended fluid filled tube running in a tortuous fashion from the region of Viborgs triangle, rostrally behind the vertical ramus of the left mandible before crossing halfway along the horizontal ramus of the mandible close to the facial artery. The swelling disappeared in the region of the original wound.

Ultrasonographic examination demonstrated an anechoic fluid-filled salivary duct of approximately 2 centimeters diameter at the widest point. Approximately 4-5 cm rostral to the mandible the fluid swelling stopped abruptly. A sample of fluid was aspirated following septic preparation to reveal a serous fluid of low viscosity, likely to be saliva.

Given the history of previous trauma to the duct a diagnosis of stenosis or occlusion to the parotid salivary duct was made.

Therapy

Initially it was advised to avoid surgical intervention for six weeks to determine whether spontaneous atrophy of the gland due to back-pressure would occur. After four weeks of no improvement the client elected for chemical ablation of the parotid gland.

Whilst under general anaesthesia the duct was catheterised percutaneously and a 10% formal saline solution was infused retrograde into the duct. This was left for one minute and the contents then aspirated. The incision was then sutured and an adherent dressing placed over the site. The horse was recovered from anaesthesia using our assisted recovery system.

Post operatively no increased swelling was noted. The area of distended salivary duct and gland slowly reduced in size over the next 3 weeks until no significant distension was detectable.

Follow-up, some 21 months later, demonstrated a thin, tight cord in the region of the initial tortuosity duct and no abnormal external appearance associated with the parotid gland. The owner reported that there had been no distension of the gland or duct in the intervening time.

Discussion

Formalin has also been used successfully in the horse for ablation of ethmoid haematomas. 2% Chlorhexidine and 2% Iodine povidone iodine and silver nitrate have also been used but in one study it was found that formalin was the least irritant to salivary gland tissue.

We have since undertaken this procedure successfully in a second horse that had a sialolith within the salivary duct.