Clinical Commentary

Submural tumours and masses of the foot

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In this issue, Brounts et al. (2008) present a case report describing and verifying for the first time the presence of a glomus tumour interposed between third phalanx and hoof wall. Submural tumours and masses (keratomas, squamous cell carcinoma, malignant melanoma and mast cell tumour) are uncommon, but a given practice or practitioner is likely to encounter such. It is important to note that a myriad of problems (those in the described group) as well as other foot related diseases have a very similar clinical presentation (Moyer 1999; Honnas and Moyer 2007). This usually includes varying degrees of lameness, improvement with local diagnostic anaesthesia, presence or absence of hoof wall distortion, and often radiographic evidence of focal third phalanx lysis. Keratomas will often, but not always, provide radiographic evidence that is strongly suggestive (Moyer 1999; Honnas and Moyer 2007). This consists of rather well demarcated margins at the lytic site; however, such an appearance is not diagnostic.

This author is unaware of techniques other than surgical exploration (Fig 1) to provide an accurate diagnosis or resolution of the problem. This implies that in most cases (faced with similar clinical presentation) one must access the lesion or lesions through the hoof. The horse in the case report was handled via general anaesthesia.

This author generally approaches these cases with the horse lightly sedated and prefers the standing position. In most instances the lesion or lesions can be approached through the hoof wall rather than the sole as this seems to considerably lessen post operative pain. The technique involves using radiography and enables the precise localisation of the lesion relative to hoof wall. This author employs local anaesthesia and controls bleeding by tightly bandaging the lower limb around the circumference of the fetlock with an elastic bandage. This author prefers to expose the lesion by using a portable motorised burr through the hoof wall and once the laminar tissues have been exposed and the trapped venous bleeding subsides the lesion or lesions usually become more evident. The mass or masses can be removed with both blunt dissection and curettage of the third phalanx. In most instances the defect is packed with sterile gauze impregnated with 2% iodine and a foot bandage is applied.

A shoe (often a full bar shoe with side clips) may be applied at this point, depending upon how much hoof wall...

Fig 1a: Surgical removal of a keratoma through the wall of the hoof capsule in a standing, sedated horse. The keratoma was localised near the coronary band.

Fig 1b: A trephine used to remove the wall overlying the keratoma.
has been removed. The horse is placed on nonsteroidal anti-inflammatory medications for the first 2 days. The bandages are usually changed daily until the underlying exposed tissues are dry (showing evidence of early keratinisation) and free of exudate. For the most part this author does not employ antimicrobials unless there is evidence of joint or surrounding tissue infection.

We now have an additional cause of submural mass formation to add to the list.

References

