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Long-term outcome following laser surgery in the treatment of histologically-confirmed equine sarcoids

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Introduction
The equine sarcoid is a locally-invasive and non-metastatic skin tumor, representing the most common form of equine cutaneous neoplastic disease. Many different treatment methods exist and the therapy of choice is based on sarcoid size, location and type. This study aimed to review the success rate of laser surgery as the initial treatment for sarcoids in the horse.

Material and methods
Strict adherence to laser safety was maintained during the surgical procedure. A margin of at least 1cm visibly and palpably normal tissue around the sarcoid was resected by laser, followed by formation of a charcoalised eschar. Between 500 - 5000J laser energy was used per sarcoid depending on size, at a power setting of 25W. All surgical wounds were left to heal by secondary intention. Horses that met the following criteria were included: <5 sarcoids removed; histological confirmation of sarcoid; no prior/concurrent sarcoid treatment; operated on between 1/1/10 and 1/1/11. Data were retrieved from hospital records and long-term follow-up was obtained via telephone questionnaire. Outcome was considered successful if the treated sarcoid had shown no sign of recurrence.

Results
25 horses with 41 sarcoids were included. There were 16 (64%) males and 9 (36%) females. Surgery was performed under standing sedation in 24 horses (96%) and under general anaesthesia in 1 horse (4%). 17 horses (68%) had 1 sarcoid, 4 had 2 sarcoids, 1 had 3 sarcoids and 3 had 4 sarcoids. All masses were confirmed to be sarcoids by histology. Type of sarcoid was reliably documented in 32 instances: 14 (34%) were fibroblastic, 9 (22%) nodular, 4 (10%) verrucose, 3 (7%) occult and 2 (5%) mixed lesions. Mean sarcoid size was 4.6cm (maximum dimension recorded, range 0.5–10cm). 27 sarcoids (66%) were located on the body, 9 (22%) on the limbs and 5 (12%) on the head.

Follow-up was available for 24 horses, after a mean of 26 months following surgery. Of these, the original sarcoid had returned in 4 cases (22%). Two horses had a sarcoid that occurred in an unrelated site to the original lesion. Removal of a facial sarcoid was a significant risk factor for recurrence (P =0.018).

Discussion / Conclusion
Overall this study showed that laser resection of sarcoids has a success rate of 83% after a mean of 26 months. Laser surgery alone is an effective and safe treatment for horses with sarcoids. It has several advantages over other treatment methods: it is comparatively quick and easy, haemorrhage can be well controlled, it can often be performed in the standing horse eliminating the inherent risk and cost of general anaesthesia, repeat veterinary involvement is not required and it is safer for the veterinarian, horse and owner.