

Treatment of an aneurysmal bone cyst in the first phalanx of a thoroughbred yearling colt using intralesional doxycycline sclerotherapy

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Objective

To describe a minimally invasive, percutaneous, intralesional sclerotherapy technique for the treatment of an aneurysmal bone cyst located in the proximal first phalanx, utilising autologous serum and doxycycline foam.

Methods

A nonclinical aneurysmal bone cyst was identified proximally in the first phalanx of the right forelimb of a Thoroughbred yearling colt during pre-sales screening radiography. To maximise future athletic performance, treatment with a foam sclerotherapy solution was formulated using autologous serum and doxycycline at a concentration of 10mg/ml. Under brief general anaesthesia, two doses were administered six weeks apart into the lesion via an 11-gauge Jamshidi needle; under radiographic guidance.

Results

The colt remained free of clinical lameness throughout the treatment. Follow-up radiographs taken at 12- and 16-weeks post-treatment indicated a filling of the cavities with trabecular bone. A small bony sequestrum developed over the injection site six weeks subsequent to the second treatment. This was debrided under sedation and resolved without any further complications. The colt has started with the intent of breaking and advancing into race preparation. At the time of writing, there was no evidence of any complications associated with the aneurysmal bone cyst.

Conclusion

This case study presents the first reported case of an aneurysmal bone cyst in this location; the proximal first phalanx of a horse, along with the effective treatment employing a previously described minimally invasive intralesional doxycycline sclerotherapy technique. Only minor post-treatment side effects were observed, and the colt is currently engaged in routine physical activities appropriate for its age.

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