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Clinical Images

Use of Kirschner External Fixator in Surgical Resolutions in common Calcaneal Tendon Avulsion

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A 3-year-old Rottweiler arrived at the clinic after having run away from home, returning after 20 days, pregnant, with avulsion of the common calcaneal tendon of the left limb, with exposure of the calcaneal bone and the presence of myiasis in an advanced stage, which had already been treated (Fig. 1). The owner requested her abortive castration.

After preparations for the surgical intervention (Fig. 2), the animal was anesthetized and the tendon was reimplanted in the calcaneus using nylon thread. The head of the tendon was identified (Fig. 3), and several repeated tractions were performed in order to promote its extension and lengthening, and two threads were passed in a cross shape. Two nylon threads were also passed through the calcaneus bone in the same way, after debridement of the site. After these procedures were completed, the head of the tendon was positioned over the calcaneus bone and the raffia was performed.

It is clear that these procedures cannot be sustained alone without concomitant immobilization of the limb, given the size and weight of the animal. Splints and plaster casts are not indicated in these situations, considering the immobilization time required for the surgery in question.

We also considered that this was an avulsion with bone exposure and tissue loss and that there would be a need for healing of soft tissues by secondary intention. The idea was to immobilize the tarsal-tibio-calcaneal joint using an external Kirschner fixator in order to neutralize the movement of the operated limb.

Kirschner wires were passed perpendicularly to the distal portion of the tibia and tarsal bones, positioning the limb in such a way as to preserve the tendon reimplantation and its anatomical comfort. Two parallel wires were fixed with polymethylmethacrylate, thus stabilizing the fixator (Fig. 4). The surgical wound was treated by secondary intention, with complete healing after two weeks. Antibiotic coverage was provided with Azithromycin 10 mg/kg and Meloxicam 0.2 mg/kg for seven days. The fixator was removed after 75 days, and joint movement and complete recovery of the tendon reimplantation were restored, returning the animal to its normal state. We conclude that for avulsions as well as ruptures of the common calcaneal tendon, the use of an external fixator is essential, a procedure that can be performed by any veterinary surgeon.

Figura 1.

Figura 2

Figura 3.

Figura 4.

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