COMMON CALCANEAL TENDON REPAIR IN A BLACK-AND-WHITE RUFFED LEMUR (Varecia variegata) USING A CALCANEUS TUNNEL AND MODIFIED KRACKOW SUTURE PATTERN

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INTRODUCTION

Black-and-white ruffed lemur (Varecia variegata) is a large arboreal quadruped from the suborder Strepsirrhini in the order Primates. It is listed as critically endangered species by the IUCN Red List, due to habitat destruction and pouching for human consumption. In the last 21 years, the population has declined ≥80%. Lemurs are highly social animals, living in large groups with a strict, female-dominant hierarchy.

CASE DESCRIPTION

An 8 months old, female, intact, healthy black-and-white ruffed lemur from the Zoo was presented with peracute lower leg swelling and non-weight-bearing hindlimb. Clinical evidence of complete rupture of the common calcanean tendon was present. It was sedated with an i/m injection of 0.060 mg/kg medetomidine, and 0.3 mg/kg midazolam. An X-ray study noted signs of soft tissue oedema in the calcaneal region. General anesthesia was induced with propofol i/v 2 mg/kg. Endotracheal intubation and 2% isoflurane was used to maintain anesthesia. Hydration was maintained with 0.9% NaCl 10 mL/kg/h i/v. Epidural analgesia was provided with 2% lidocaine 0.15 mg/kg.

RESULTS

A caudal approach to the common calcanean tendon was used. Reposition and reconstruction was achieved using a calcaneal tunnel and Modified Krackow (MK) suture pattern. The suture configuration of the MK suture pattern was completed with the OrthoFiber 5® pre-sterilized suture. The wound was reconstructed with a Maxon ® 2-0 suture in two layers. The skin was reconstructed intradermally with Maxon ® 2-0 to avoid suture removal procedures and associated handling with possible sedation risks. Analgesia was provided with meloxicam (0.1mg/kg iv) and maintained perorally for the next ten days.

CONCLUSION

Recovery from the surgery was uneventful, and the lemur was reintroduced into the group upon recovering from anesthesia. Initial weight-bearing started within 9 days after the surgery, with progressive limb loading in the upcoming weeks. 43 days post-surgery normal activity with full weight-bearing was observed. To the authors knowledge, this is the first report of a common calcanean tendon reconstruction in a lemur.

REFERENCES