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HUMERAL FRACTURE REPAIR USING A ROBUST FIXATION IN AN ADULT GIANT ANTEATER (MYRMECOPHAGA TRIDACTYLA)

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RESUMO

The treatment of fractures in giant anteaters is extremely challenging. Unfamiliar and peculiar anatomical characteristics, robust musculature and the imminent need for an early return to limb function highlight such challenges. Thoracic limb fractures require rigid constructions and effective bone consolidation, since this species is totally dependent on the thoracic limb to survive. The objective of this report was to describe the successful use of anatomical osteosynthesis with a robust locking compression plate in a humeral fracture of an adult giant anteater. An estimated 20 kg, adult, female anteater (Myrmecophaga tridactyla) was received at Veterinary Hospital, presenting with non-weight bearing left thoracic limb lameness after being run over on a highway. The radiography revealed a mid diaphyseal short complete oblique fracture of the left humerus. Surgical treatment was chosen and performed one day after the initial care. Surgical stabilization was performed using a craniomedial approach to the humerus, after reducing the fragments with a pointed bone forceps, a 3.5 mm broad LCP plate with nine holes, previously twisted, and seven 3.5 mm screws were applied to the caudolateral surface of the humeral shaft. Interfragmentary compression was achieved manually through the pointed bone forceps. The patient presented early limb support at 24 hours postoperatively. Radiographic monitoring was performed at 30, 60 and 90 days postoperatively, and bone healing was observed without any complications. The giant anteater has important anatomical particularities, mainly a large and robust muscular envelope around the humerus. Using inappropriate techniques or being unaware of anatomical variations can lead to injuries of noble structures during surgical approach. The locking plate promotes superior stability when compared to other methods available for fractures of the humerus, and in this case, it allowed a favorable mechanical environment for bone healing. It is concluded that the treatment of humerus fractures in giant anteaters requires robust fixation. The use of a reinforced locking compression plate system proved to be effective and adequate to the mechanical load that an adult individual of this species needs for early use of the thoracic limb and, at the same time, efficient in controlling interfragmentary movement, which allowed fracture consolidation.

PALAVRAS-CHAVE: Bone consolidation, Orthopedics, Osteosynthesis, Wild animal

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