

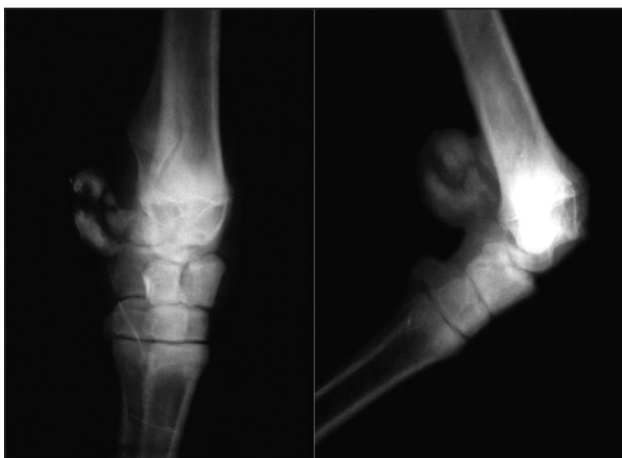
*Short Communication***FRACTURE OF ACCESSORY CARPAL BONE IN A CAMEL: A CASE REPORT****T.K. Gahlot, J.A. Quazi, K. Kachwaha and M.C. Parashar**

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In present study a fracture of accessory carpal bone was observed in one female camel which was brought to the clinics of Department of Veterinary Surgery. Owner reported that the saddle fell upon the forelimb when animal was in the process of sitting. Both the fore limbs were injured and swelling



**Fig 1.** A camel showing swelling of both the carpal regions but it was more marked on right carpal region.



**Fig 2.** Dorso-palmer and latero-medial radiograph of left and right carpal region showing fracture of accessory carpal bone as shown in fig 1.

developed immediately (Fig 1). Animal showed lameness with both the forelimbs. Dorso-palmer radiographs revealed the bilateral fracture of accessory carpal bone (Fig 2).

Animal was sedated with xylazine at the dose rate of 0.3 mg/kg intravenously after securing in lateral recumbency and affected limb was kept up for immobilisation. After applying traction and counter traction limb was padded with cotton and a thick cotton bandage was applied over it. A 4 mm thick and 6 cm wide iron splint was applied on lateral aspect. Splint was covered with cotton bandage to avoid pressure wound. Plaster of Paris bandages were applied over it. A 12 weeks stall rest was advised. Animal was administered injection oxytetracycline hydrochloride 1500 mg intravenously for 7 days, meloxicam 150 mg intramuscularly for 3 days and vitamin B<sub>1</sub>, B<sub>6</sub> and B<sub>12</sub> 20 ml intramuscularly for 7 days. A full limb plaster of Paris cast was applied in both the forelimbs (Fig 3). The plaster cast was removed after 6 weeks. Animal showed remarkable improvement in gait.



**Fig 3.** A camel with bilateral fracture of accessory carpal bone was immobilised with a full limb plaster of Paris cast extending from elbow to hoof.

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Exact etiology of fracture of accessory carpal bone could not be ascertained, however, trauma could have been the possible cause. Bertone (2002) reported that fractures of accessory carpal bone can occur in different planes but most commonly are seen in vertical plane through the lateral groove formed by the long tendon of ulnaris lateralis muscle. Although mode of trauma which induced accessory carpal bone fracture is unclear but asynchronous contraction of flexor carpi and ulnaris lateralis muscles can cause this fracture. The fracture may occur in a nutcracker fashion. However, in present case also the fracture occurred in a nutcracker fashion. In horses, the fracture of accessory bone is stabilised by ASIF screws (Easley *et al*, 1981), subtotal resection of fractured bone (Munroe and Cauvin, 1997) and ulnar neurectomy. The removal of fractured portion of accessory carpal

bone also showed reasonably rapid return to the racing soundness (Roberts, 1964). However, in case of present study a full limb plaster of Paris cast was applied in camel with a view to achieve the healing.

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## Cancer therapy with camel antibody

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In molecular approach, serum of camel contains a unique type of antibodies devoid of light chains. Since the light chain is missing, the heavy-chain antibodies should bind their antigen by one single domain, the variable domain of the heavy immunoglobulin chain. This type of camel antibody has unique character like harsh medium resistant and ease of expression and purification in the bacterial system. Recombinant monoclonal antibodies (mAbs) are one of the most prolific drug classes in oncology and hematology with many molecules under clinical development or usage. They were initially derived from murine mAbs based on hybridoma technology. Several of these antibodies are based on mouse antibody. Camel antibodies can be replaced with these therapeutic antibodies because of close homology to human VH fragments. Our group focuses on development of camel antibody against Vascular Endothelial Growth Factor Receptor-2 (VEGFR-2) which overexpressed in many types of tumors. VEGFR-2 is one of the important factors in tumor angiogenesis and a factor of choose for tumor therapy.

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