

Radiological Diagnosis in a Desert Cat (*Felis Lybica*) With Posterior Paralysis & Femoral Fracture

P. V. Parikh¹, C. M. Bhadesiya², D. B. Patil³, R. G. Jani⁴, A. Pal⁵

¹Professor, Department of Surgery & Radiology, C.V.Sc. & A.H., A.A.U., Anand, Gujarat

²Ph. D. Scholar, Department of Veterinary Medicine, C.V.Sc. & A.H., A.A.U., Anand, Gujarat

³Professor & Head, Department of Surgery & Radiology, C.V.Sc. & A.H., A.A.U., Anand, Gujarat

⁴Associate Professor, Department of Veterinary Medicine, C.V.Sc. & A.H., A.A.U., Anand, Gujarat

⁵M.V.Sc. Student, Department of Surgery & Radiology, C.V.Sc. & A.H., A.A.U., Anand, Gujarat

Abstract: A Desert cat (*Felis libyca*) kitten was brought to Department of Surgery & Radiology, College of Veterinary Science & Animal Husbandry, Anand with history of inability to get up and bear weight on hind limbs. It was diagnosed with posterior paralysis and femoral fracture. A record of the radiographic imaging interpretation in this species is discussed for clinical standpoint of view. Since there is a lacuna in literature about various diseases and disorders in this species, an attempt has been made to study from the available resources during case management.

Keywords: Desert cat, *Felis libyca*, Posterior paralysis, Radiographic interpretations.

I. INTRODUCTION

The Desert cat (*Felis libyca*; Schreber, 1775) is categorized under 'Least Concern' category in International Union for the Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species and is protected across most of its range in Asia and Europe. It is found through most of Southeast and Central Asia into India, China and Mongolia. It is subclassified as Kingdom: *Animalia*; Phylum: *Chordata*; Class: *Mammalia*; Order: *Carnivora*; Family: *Felidae* and Genera: *Felis*. The population trend of this species is decreasing [1]. This species of cat is wild-living, and nowadays it is using abandoned buildings and farm outbuildings as resting areas around human populations [2]. There are very few reports of posterior paralysis in wildcat species and the causes have remained almost undiagnosed [3].

II. HISTORY

The kitten (Fig. 01) was rescued from a locality near Anand town, Gujarat and was brought to Department of Surgery & Radiology, College of Veterinary Science & Animal Husbandry, Anand Agricultural University, Anand with a history of inability to get up and bear weight on hind limbs. History did not include evidence external hemorrhage. The kitten was able to consume feed and water. There was no history of voiding urine or stool from the time of rescue.

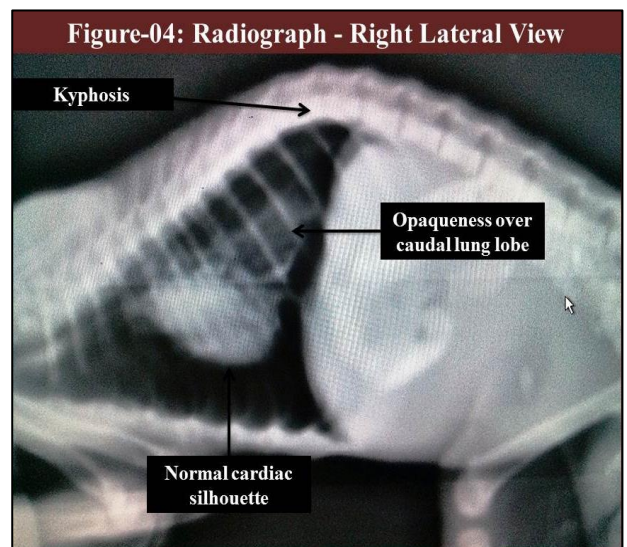
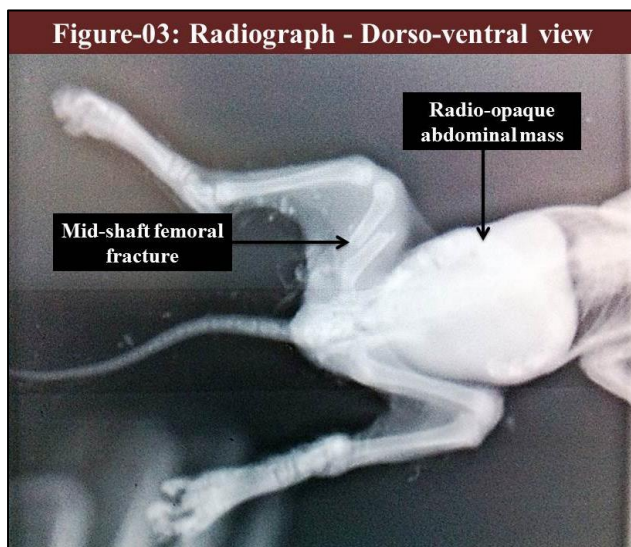
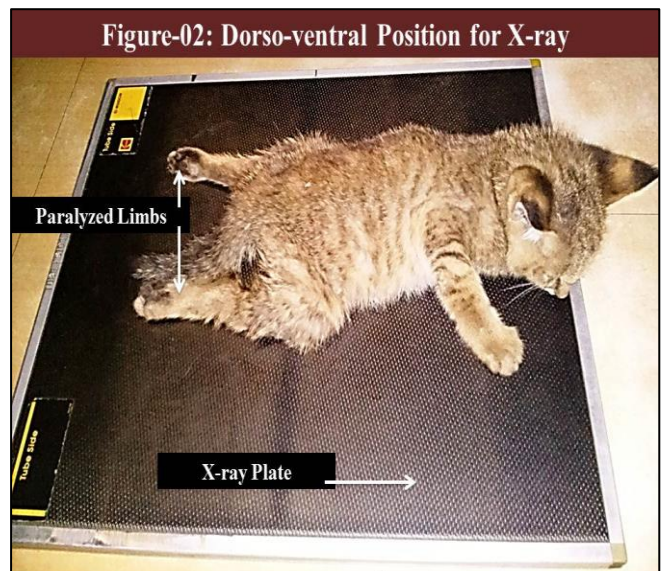
III. CLINICAL EXAMINATION

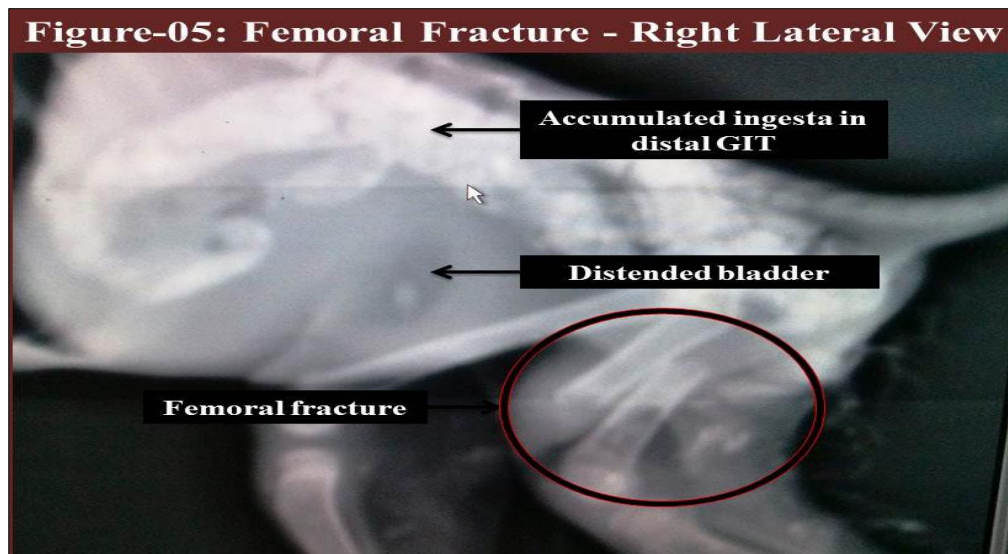
Clinical presentation included dyspnea, hyperesthesia, abdominal distension, kyphosis, paraplegia with negative pedal reflexes in both hind limbs, dragging of hind limbs on progression with inability of weight-bearing and absence of anal-sphincter reflex. Traumatic injury was suspected however, clinical examination did not reveal any external injury.

IV. RADIOGRAPHIC EXAMINATION & INTERPRETATION

The kitten was subjected to a detailed radiographic examination using Horiso-X Machine and Kodak Computer Radiography System. Dorso-ventral (Fig. 02) and right-lateral views were taken.

A complete mid-shaft fracture of right femur and radio-opaque mass in abdominal region were visible in dorso-ventral view (Fig. 03). Fracture of mid-shaft of right femur was suggestive of traumatic injury. Right-lateral view revealed normal cardiac silhouette and increased pulmonary opacity over caudal lung lobes (Fig. 04). Increased pulmonary opacity over caudal lung lobes was suggestive of recumbent atelectasis and should be differentiated from pulmonary edema. Furthermore, kyphosis (Fig. 04) initiating from T₁₂ vertebra with extreme deviation over L₁ and descending from L₃ with no structural damage to the vertebral column was observed, suggestive of a long-standing case of posterior paralysis. Abdominal and pelvic area revealed accumulation of digested material in large intestine continued to rectum with distended urinary bladder and complete mid-shaft fracture of right femur (Fig. 05). Accumulated ingesta and urine indicated damage to lumbo-sacral nerve branches due to lesions of kyphosis or trauma. As the kitten was unable to withstand anesthesia, immobilization of the fracture was carried out and long-term supportive therapy was advocated with overall improvement in clinical status.





V. CONCLUSION

There are least or no such reports of posterior paralysis and fracture in Desert cat in India. Radiographic interpretations were proven life-saving in this case and guided appropriately for further therapeutic approach. Since there is a lacuna in availability of diseases and disorders of this species in its free-living habitat, such efforts and documentations would aid new insights to ascertain present scenario of morbidity and mortality patterns in this species.

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