

RADIOLOGICAL DIAGNOSIS OF CERTAIN ORTHOPAEDIC CONDITIONS IN CAPTIVE WILD ANIMALS

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Radiology plays a major role in the confirmatory diagnosis of various surgical conditions both in domestic and wild animals. Due to the importance of radiology and high value of captive wild animals, a radiology unit was started at Zoo Veterinary Hospital, Arignar Anna Zoological Park by purchasing a portable X-Ray machine (Stallion-60, Wipro GE Medical Systems Limited) having the capacity of 100 KV and 60 MA. In addition to the radiological parameters like KV, MA, exposure time and FFD, proper positioning of the animal is essential for the production of diagnostic radiograph. Various physical and chemical restraint methods can be used for proper positioning of the captive wild animals. Chemical restraint is more preferable than physical restraint to avoid the formation of undesirable shadows. For chemical restraint, combination of Ketamine HCL and Xylazine HCL have been commonly used at various dosages depending upon the Species. From 1.6.94 to 30.8.95, among the 20 cases examined, seven orthopaedic cases have been diagnosed in various wild mammals and birds. The details of KV, MA and exposure time used were given in Table-I. The case history and radiological interpretation of above cases were reported here under.

Table-I. The radiological details of captive wild animals.

Animal	Part Examined	Part thickness (inches)	KV	MA	Sec.
Tiger cub	Tibia and fibula (Lt)	3.	55	40	0.1
Tiger cub	Radius and Ulna (Lt)	2.5	50	20	0.2
Wild dog	Radius and Ulna (Rt)	1.5	50	40	0.1
Tiger cub	Tibia and Fibula (Rt)	3	55	20	0.2
Common Langur	Pemur (Lt)	2.5	55	40	0.1
White Peafowl	Tibio-Tarsal joint (Rt)	1.5	45	40	0.08
White Ibis	Tibia (Lt)	1	45	20	0.1

Case - I:

Tiger cub, Male, 6 months old. The animal showed lameness of left hind limb and not able to stand and walk. The animal



Case I. Lateral radiograph of left hind limb of tiger cub demonstrating complete fracture of tibia and incomplete fracture of fibula

had a history of falling down from the wall while physical restraint.

Clinical examination :

Severe pain evinced on palpation of the left tibia and fibula.

Radiological diagnosis:

Complete fracture of tibia and incomplete fracture of fibula.

Case - II:

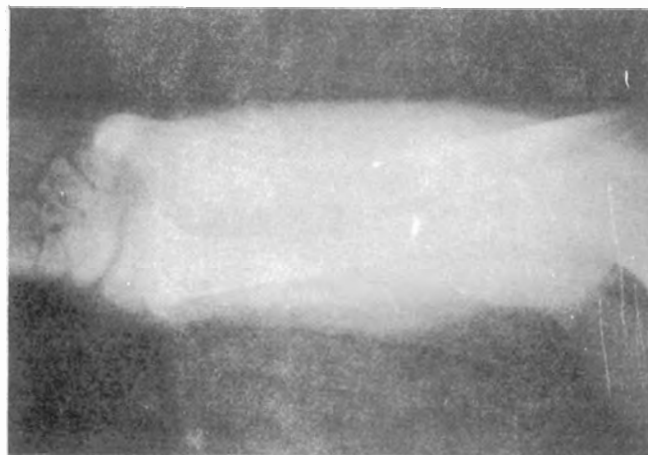
Tiger cub, female, 7 months old. The animal showed lameness of its left fore limb following the struggling in squeeze cage and unable to bear weight on the affected limb.

Clinical examination:

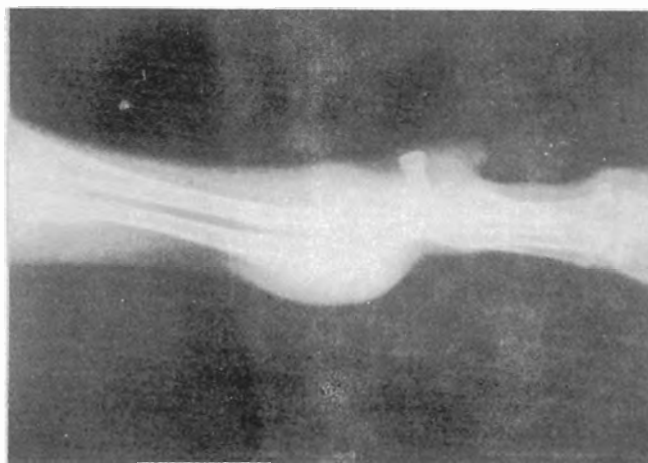
Diffuse swelling in the distal part of the left radius and ulna. Palpation of the inflamed area revealed crepitus and severe pain.

Radiological diagnosis :

Complete fracture of radius and ulna.



Case II. Dorsopalmer radiograph of left fore limb of tiger cub demonstrating complete fracture of radius and ulna.



Case III. Dorsopalmer radiograph of right fore limb of wild dog demonstrating old fracture of radius and ulna.

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Case - III:

Wilddog, female, 7 months old. The animal showed progressive lameness of right forelimb.

Clinical examination:

Hard swelling in the distal part of the right radius and ulna.

Radiological diagnosis:

Old fracture of radius and ulna.

Case - IV:

Tiger cub, Male 6 months old. The animal showed lameness of right hind limb and unable to bear weight on the affected limb.

Clinical examination:

Pain evinced on palpation of the right tibia and fibula.

Radiological diagnosis:

Incomplete fracture of tibia.



Case IV. Lateral radiograph of right hind limb of tiger cub demonstrating complete fracture of tibia.

Case-V:

Common Langur, Male, 4 years old. The animal showed lameness of left hind limb and inflammation of the affected limb noticed.

Clinical examination:

Severe pain evinced on palpation of the left femur

Radiological diagnosis:

Complete fracture of femur



Case V. Vento dorsal radiograph of hip and left hind limb of common Langur demonstrating complete fracture of femur at its shaft.

Case - VI:

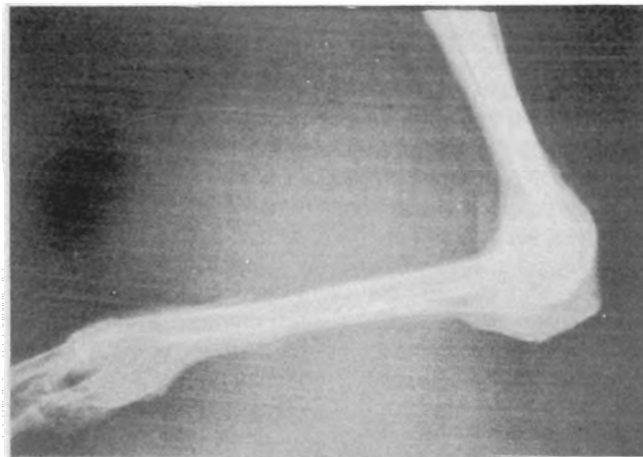
Whitepeafowl, Female, 4 years old. The bird showed chronic lameness of both the limbs in progressive condition.

Clinical examination :

Painful swelling at the right tibio-tarsal joint.

Radiological diagnosis:

Articular gout - Tibiotarsal joint.



Case VI. Lateral radiograph of right limb of white peafowl demonstrating articular gout on tibio-tarsal joint.

Case - VII:

White Ibis, Female, 5 months old.

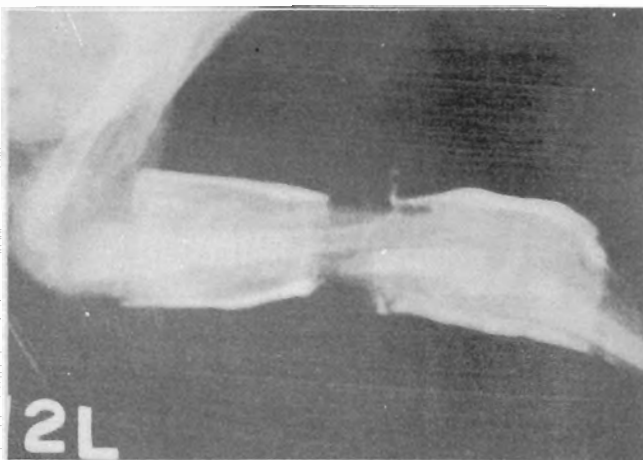
The bird was unable to stand following the blunt trauma on it's left limb.

Clinical examination:

Palpation of left tibia revealed crepitus and pain.

Radiological diagnosis:

Complete fracture of tibia.



Case VII. Lateral radiograph of left limb of white ibis demonstrating complete fracture of tibia at its shaft.

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