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D Dilip Kumar

Dean, Veterinary College, Bidar
KVAFSU, Bidar, Karnataka,
India

K Vijay

Department of Veterinary
Surgery and Radiology
Veterinary College, Bidar
KVAFSU, Bidar, Karnataka,
India

SH Rajesh

Department of Veterinary
Surgery and Radiology
Veterinary College, Bidar
KVAFSU, Bidar, Karnataka,
India

Repair of femur fracture in a cat

D Dilip Kumar, K Vijay and SH Rajesh

Abstract

A cat presented with no weight bearing on the limb with visible limb shortening was diagnosed for diaphyseal femoral after radiographic evaluation. It was operated by Intra-medullary pegging with 2.7mm threaded broken drill bit coated with Poly Methyl Metha Acrylate. PMMA was coated to make pin of appropriate size for the femoral medullary cavity of the cat. Cat recovered uneventfully and weight bearing was restored.

Keywords: Small animals, fracture, drill bit, PMMA

Introduction

Fractures are the common ailments in Small animals (Dogs and Cats). Pelvic bone fracture accounts for 78% of all the fractures in a cat and of all pelvic bones femur fractures accounts for 38% (Hills, 1977) [2]. The clinical signs exhibited are pain, swelling, crepitus and limb shortening This paper puts on record treatment of femur fracture with a threaded broken drill bit coated with PMMA in a cat.

Case history and observations

A 4 months old cat was presented to TVCC, Veterinary College, Bidar, with history of falling from height. On physical examination it was found that the cat was not bearing any weight on the affected limb and limb shortening was observed. There was reduced heart rate and respiratory rate with normal rectal temperature. Radiographic examination revealed complete diaphyseal fracture of the femur. Cat was then prepared for surgery for repair of the fracture using intra-medullary pinning.

Treatment and Discussion

The cat was operated under xylazine and ketamine anaesthesia. Femoral fracture was successfully repaired by retrograde placing of intra-medullary PMMA coated 2.7mm threaded broken drill bit. Complete anatomical alignment of fracture fragments were seen till healing. The fracture healed without any complications. The PMMA has been widely evaluated for the treatment of synovial arthritis by Butson *et al.* (1996) [1] and for long bone fracture treatment in dogs Yuvraj Hegade, (2004) [3]. There is no commercial Intra-medullary pin available for the medullary cavity of the cat. In the present study this lacunae was overcome by coating PMMA over a drill bit and making the implant of appropriate size for a cat. This implant was well tolerated by the animal and the femur fracture healed successfully. In the phase of non-availability of commercial implant this technique can be adopted in cats.

Femur fracture in a cat

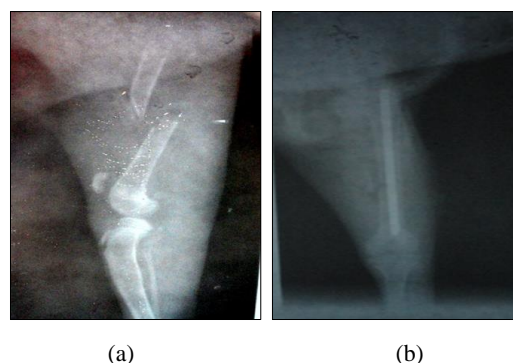


Fig 1: a- Short oblique diaphyseal fracture of femur, b- Skygram of PMMA coated drill bit

Corresponding Author:

K Vijay

Department of Veterinary
Surgery and Radiology
Veterinary College, Bidar
KVAFSU, Bidar, Karnataka,
India

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