



Short Communication

## Repair of Humeral Fracture in a Peregrine Falcon by Nailing of an Injection Needle

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### ABSTRACT

A young peregrine falcon was presented with a right midshaft open fracture of the humerus. This report describes an innovation technique for intramedullary pinning using an injection needle as a pin device of internal fixation.

*Keywords: Falcon, Humerus, Nailing, Needle*

A young peregrine falcon was presented to the Surgery Clinic of the Faculty of Veterinary Medicine, Cairo University for evaluation of an injured wing. Upon its clinical examination, the bird was emaciated, weighed about 500 gm, and suffered an open fractured humerus of the right wing. Radiography confirmed the presence of an oblique, mid shaft humeral fracture (Fig.1). The falcon was taken to emergency surgery to pin its broken humerus. The bird was rehydrated by s.c administration of lactated Ringer's solution (50 ml/kg). Anesthesia was induced by i.m injection of xylaject (5mg/kg)(XylazineHCl, Adwia, Egypt) and Vetalar (10 mg/kg) (Ketamine HCl, Pharmacia,UK) into the keel muscles. The anesthetic effect started 3-5 minutes. The inner and outer sides of the affected region was prepared by plucking the feathers. The exposed fracture site was cleansed, disinfected with povidone iodine and wrapping the rest of the wing. Debridement of the fracture site to remove unsound tissue followed by sterile saline irrigation were done. The utilized pin was a sterile injection needle (1.5 inches and 18 gauge) was introduced with manual slight pressure in the sulcus just behind the cranial tuberosity of the affected humerus in normograde manner through its medullary cavity. Whilst the two fractured segments were held firmly, the needle wholly directed to pass along the medullary cavity of distal fracture segment of the humerus to anchor its inner cortex. To ensure rotational alignment, the intramedullary needle device was stabilized with a cerclage knot applied across the reduced fractured ends using Vicryl 2/0 (Vicryl-Ethicon, USA). The muscle and subcutaneous tissues were closed by using Vicryl 4/0 with simple continuous suture. The skin was apposed with the same suture material using simple interrupted suture. A dose of antibiotic Rociphin (20 mg/kg) (Ceftiaxone, Roche,Switzerland) was injected