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## Case study on surgical management of mandibular fracture in a dog

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### Abstract

The case study on seven years old indie dog recovered from mandibular fracture due to automobile accident. The confirmatory diagnosis was done by skull ventro- dorsal radiograph. The fracture was repaired by criss-cross wiring surgical procedure using stainless steel wire. United and healed fracture site of the mandible was evidenced at 3<sup>rd</sup> week post-surgery .Animal successfully recovered by surgical intervention of fractured site.

**Keywords:** canine, traumatic injury, mandible fracture, orthopaedic wiring

### 1. Introduction

Mandibular fractures are commonly occurs in dogs which comprises 6 percent of the total fracture incidence and mostly of traumatic etiology. Surgical intervention of mandibular fracture showed 85% success <sup>[1]</sup>. The surgical management of mandible fracture effective and have reduced the complications that occurs during fracture repair <sup>[2]</sup>. The present case with mandibular fracture was repaired surgically by criss cross orthopedic wiring procedure.

### 2. History and Observation

A stray indie dogs approximately 7 years old was presented to cloud No 9 Kennel and Nursing care veterinary clinics with the history of automobile accident. On physical examination there was bleeding from the mouth with open fracture in the mandible and severe pain evinced on palpation. Plain radiography of skull ventro-dorsal view was taken, which was confirmed as fracture of mandible.

### 3. Treatment and Discussion

Pre-operative blood complete blood count and serum biochemistry was done. Blood picture revealed thrombocytopenia. The dog was given haematinics for a period a one week. After a week, the pre-operative checkup was done and surgery was fixed. After 8 hours of starvation, the surgical procedure was proceeded under xylazine Hydrochloride sedation at a dose rate of 1mg/kg bodyweight and general anesthesia was accomplished by using combination of Diazepam at a dose rate of 0.5mg/kg and Ketamine at 5mg/kg respectively. The animal was placed in ventro- dorsal position and the fractured site was prepared aseptically. Criss- cross orthopaedic wiring was done using 22G orthopaedic wire as per standard procedure <sup>[3]</sup>. Post operatively the dog was given with clindamycin at a dose rate of 10mg/kg for 10 days and surgical site was applied with hexigel regularly. Radiography taken on 14<sup>th</sup> and 21<sup>st</sup> day post-operatively showed progress in the union of fractured mandible. The dog post-surgery had taken feed and water properly after 3 days of surgery with no post-operative complication and successfully recovered by surgical intervention of fractured site.

### 5. Conclusion

Mandible fractures of traumatic origin dogs is commonly occurring fracture and it can be surgically repaired by orthopedic wiring without any post-operative complications.

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