Case spotlight 2025-023

OssiVet

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Chronic Open Proximal Oblique Fifth Metacarpal Fracture – 8 yr FS Pitbull

Chronic Open 5th Metacarpal Fracture in a Dog Managed with OssiVet® and Internal Fixation

Background

Open metacarpal fractures managed conservatively may progress to delayed or non-union, particularly in cases involving prolonged immobilisation and soft tissue compromise.
An 8-year-old female Pitbull was referred with a chronic open proximal oblique fracture of the right fifth metacarpal. Despite prolonged immobilisation, follow-up radiographs showed no evidence of meaningful union, and the limb remained clinically unstable.

Surgical objectives:

Surgical revision of a chronic open metacarpal fracture following failed conservative management, including internal fixation and application of OssiVet®.

Materials and Methods:

Intraoperative findings included fibrous tissue and callus formation consistent with delayed union. Surgical management included:

- ·Debridement of fibrous tissue and nonviable callus
- ·Copious lavage
- ·Bacterial culture sampling
- ·Stabilization using two lag screws combined with a plate-and-screw construct

No gross purulent discharge was observed intraoperatively.
Following final irrigation, OssiVet® was applied in a light paste format to augment the implant construct and assist with stabilization at the fracture interface. Placement was performed at the discretion of the operating surgeon to reinforce fixation and provide additional structural support.

Results

At postoperative re-evaluation :

- The dog was clinically weight-bearing
- Approximately 25% return of carpal flexion was noted (previous splint immobilisation >2 months)
- No incisional drainage was observed
- After 4 weeks follow-up, the patient was back to complete motion.

Clinical Relevance

Chronic open metacarpal fractures can present both mechanical and biological challenges, OssiVet® can aid in additional stabilisation at the fracture site and earlier weight bearing for the patient. Early postoperative findings in this case are encouraging, with functional weight-bearing and no evidence of active infection at short-term follow-up.