MANAGEMENT OF UNUSUAL MANDIBLE FRACTURE IN A NEWBORN CALF

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Introduction: Mandible fracture repair present several problems compared to long bone fractures. Presence of teeth in fracture line poses an additional problem. Loss of mandibular function results in lack of intake of food and fluid. The curved contour of mandible makes several orthopedic implants unsuitable for their application. Orthopedic wire fixation is one of the most commonly used methods for treatment of mandible fracture. However, this technique has several inherent problems like unstable fixation, malocclusion, and breakage of wire. Repair by intra-medullary pinning result in proper stabilization fracture fragments.

Material and methods: A one-day-old cow calf was referred to the Surgery department with the history that during handling of dystocia, the lower jaw of calf become damaged and fractured. Clinical examination and radiography revealed complete fracture of horizontal rami of mandible along with lacerated wound on ventral aspect of lower jaw. After local infiltration infiltration anesthesia with 2% Lidocaine hydrochloride, 1.5 mm intra-medullary Steinman pin/K-wire is inserted from the level of 4th incisor to last molar tooth in mandible canal and same procedure was repeated on other side. Then muscles of the fractured site were sutured by simple interrupted pattern using Vicryl No-1 as suture material to hold the pin in position. The laceration on ventral aspect was repaired with interrupted suture with silk. Oral antiseptic gel containing Chlorhexidine-metranidazole was locally applied. Antibiotic for five days and analgesic for two days were administered parenterally. Owner was advised to feed THE CALF with hand for 10-12 day post operatively.

Results and discussion: Skin suture on ventral aspect of lower jaw removed on 9th post operative day. THE CALF was completely able to take fluid and mother milk on 8th day after the operation and showed uneventful recovery.

Conclusion: Repair of mandibular fracture require precise planing for the selection of implant needed for fixation due to the curved contour of mandible. Inspite of many complications, Intramedullary pinning of the mandible is preferred as it results in proper immobilization and adequate stabilization necessary for the anatomical and physiological restoration.