APPLICATION OF PLASTER CAST AND WIRING FOR UNILATERAL HORN FRACTURE REPAIR IN A KANKREJ BULLOCK: A CASE REPORT

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Received 16-02-2016 ***Accepted 23-03-2016***

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In cattle, horn fracture occurs as a result of trauma due to fighting or an accident. Incomplete fracture, if not treated early, may be associated with complications like complete fracture following repeated injury and frontal sinusitis and then dehorning is the solution to the problem (Tyagi and Singh, 1983). Incomplete fracture of horn involving its distal portion may heal if properly immobilized, but immobilization itself is difficult (Venugopalan, 1994). Therefore, an effort has been made to document a case report on immobilization of simple incomplete horn fracture with plaster cast and wiring in a bullock.

CASE HISTORY AND CLINICAL OBSERVATIONS

A 7 year-old Kankrej bullock was presented to Department of Veterinary Surgery and Radiology, Veterinary College, Anand with history of accidental injury 3 days before involving right side of horn with its loosening and bleeding from the affected side nostril. On visual inspection, affected horn was slightly downward compared to normal left horn. Clinical examination revealed unilateral epistaxis and crepitus with pain on percussion on the affected horn. It was diagnosed as a case of right side incomplete horn fracture.

TREATMENT AND DISCUSSION

The bullock was sedated using xylazine hydrochloride 0.05 mg/kg b.wt. IM and corneal nerve block was performed using 2% lignocaine hydrochloride. The plaster of paris cast was applied in figure of '8' pattern adjoining both the horns, with taking the support of the contralateral unbroken horn and maintained for 10 weeks with rigid wiring of two horns. Injection of ceftriaxone sodium (10 mg/kg b.wt. IM) for 4 days, and Ketoprofen (1.1 mg/kg b.wt. IM) and Carbazochromesalicylate (Stadren–V, Medinex Lab Pvt. Ltd) for 7 consecutive days were administered. The healing of the fracture ends was assessed based on clinical union. The case showed complete recovery and clinical union

Fig. 1:Wiring and plaster cast application for repair of horn fracture in a bullock

by four weeks, but the plaster cast and wiring was maintained for 10 weeks to allow the complete boney union. After 10 weeks animal made an uneventful recovery. (Photo)

There was bridging of gap between the fractured ends of horny tissue with formation of a depressed sulcus or groove around the horn at the site of fracture. As the time passed there was shifting of this ring towards the apex indicating normal growth of the horn at the base. The observation of clinical union of fractured ends indicated that the plaster cast and wiring provided good stability at the fracture site. This technique helped in fast recovery and early return of the animal to the work. According to Patil and Nagaraja (2014) distal portion of horn is usually normal but the proximal horn part is more affected in such traumatic fractures, as was seen in the present case.

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