SYNTHETIC CAPSULE TECHNIQUE FOR MANAGEMENT OF HIP DISLOCATION IN A BUFFALO CALF - A CASE REPORT

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INTRODUCTION

Hip dislocation (coxofemoral luxation) is the second most common luxation in cattle and buffaloes. Though the condition occurs in all age groups, it is most frequent in 2 to 5 years old animals. The inherent instability of the hip joint in bovine due to shallowness of the acetabulum, the lack of prominence of the acetabular ring, presence of notches at its margin, small articular head of the femur and under development of supporting ligamentous structures of the joint predispose these animals to hip luxation (Singh and Tayal, 2002). Hip dislocation is associated with traumatic episodes and dystocia in adult cattle and falling in calves (Ducharme and Trostle, 2004). The luxation is generally craniodorsal, but cranioventral luxation or luxation in the adductor foramen is also seen (Tulleners and Nunamaker, 1987). Extra capsular stabilization is technique used for the treatment of chronic luxation in canines when there is no joint capsule available for capsulorraphy (Barden and Johnson, 1988).

A case of surgical management of hip dislocation in a buffalo calf by extra capsular stabilization with synthetic capsule technique for the first time is reported.

CASE HISTORY AND DISCUSSION

A one-month-old female indigenous buffalo calf weighing approximately 35 kg body weight was brought to the large animal surgery out patient unit of Madras Veterinary College Teaching Hospital with a history of unknown traumatic injury in the left hip 24 hours befor examination. Examination revealed non weight bearing lameness, shortening, elevation and pain noticed on the affected hip. The case was subjected for radiograph. Ventrodorsal radiograph revealed caudoventral luxation left hip into the obturator foramen was noticed and decided for manual reduction of the affected joint. Manual reduction was impossible and finally it was decided for open reduction and stabilization with synthetic capsule technique (Piermattei and Flo, 1997).

OPERATION PROCEDURE

The left hip was prepared aseptically and the operation was performed by administration of mild sedation, xylazine at the dose rate of 0.02 mg/kg body weight and high epidural anaesthesia with 2% lignocaine hydrochloride. Through cranio-lateral approach, a linear curved three-inch skin incision was made. The fascia and muscle bundle was separated, and the hip joint was exposed. On exploration, the joint capsule was fully torn off, the ligamentum terus was severed, and the femur head was found caudo ventrally in to the obturator foramen. The luxated hip was reduced and repositioned into the acetabular cavity. Since no joint capsule was available for capsulorraphy, synthetic capsule technique was performed to retain the joint in position. Two cancellous screws of 3.5 mm 28 mm length were inserted in the dorsal rim of the acetabulum, at 10.00 and 1.00 o’clock positions and care was taken not to penetrate the articular surface. Metal washers were placed on the screws to prevent the suture from slipping off the head of the screw. Two lengths of 18 gauze monofilament nylon were threaded through a hole drilled in the bony bridge between the trochanter and femoral head. The sutures were separated and then each was placed around a screw, under the washer. The femoral head was held firmly and reduced with the hip at a normal angle of flexion and slightly adducted while the sutures were tied tightly. After stabilization of the joint, the surgical wound was closed with standard
suture technique and the limb was secured with Ehmers sling.

Postoperatively the calf was treated with streptopenicillin 1 gm daily until the wound healed, and meloxicam at the dose rate of 0.5 mg/kg body weight intramuscularly, respectively, and advised complete rest. Sutures were removed at the 8th day without any post operative complications. Ten days postoperatively, the calf showed gradual mild weight bearing and after 30 days, complete weight bearing and it was released from the hospital with the preventing running, jumping and avoid slippery floor.

Extra capsular stabilization technique is a technique used to treat chronic luxation in canine (Barden and Johnson, 1988) when there is no joint capsule available for capsulorrhapy, and the same technique was used for the successful management of hip dislocation in a calf.

REFERENCES


