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Research Article

NON-SURGICAL MANAGEMENT OF UTERINE TORSION IN MURRAH BUFFALOES

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ABSTRACT

Fifty Murrah buffaloes with history of completion of gestation and uterine torsion were successfully detorted by modified Schaffer's method using extra-abdominal pressure. Before detorsion, all the animals were administered three liter dextrose saline intravenously, non steroidal anti-inflammatory and other supportive therapy in recommended doses. Within 30 min after detorsion in 30 buffaloes, water bag came out. Of these 30 cases, calving occurred spontaneously in five cases while in the remaining 25 cases, traction was applied to remove the dead fetus. In 20 cases, incomplete cervical dilatation was noticed. These buffaloes were treated with cervical dilator and parturited normally within 12 h of treatment. Of the total 50 animals, five (10%) buffaloes delivered live fetus whereas in the remaining 45 (90%) buffaloes, dead fetuses were delivered. All the treated buffaloes survived.

Key words: Buffalo, cervical dilator, modified Schaffer's method, uterine torsion

The incidence of uterine torsion in buffaloes is quite high e.g. 43.44 % (Manju,1984) and its etiology is related to uncoordinated fetal movements, pendulous abdomen, excessive fetal weight and lack of fetal fluid (Roberts, 1971). Uterine torsion can also be managed by surgical methods; however, following caesarean section (CS) a reduced fertility had been reported in buffaloes (Singh *et al.*, 2013). The present paper reports successful management of uterine torsion in buffaloes by rolling using a modified Schaffer's method.

MATERIALS AND METHODS

Fifty Murrah buffaloes were brought to the Teaching Veterinary Clinical Complex, LUVAS, Hisar with history of completion of gestation period, restlessness, colic, frequent sitting down, intermittent straining, anorexia, constipation, tail twitching and failure of parturition. All these animals were in second stage of parturition and were reported between 1 to 3 days after onset of symptoms. These animals were previously subjected to treatment for indigestion, abdominal pain and were handled by paravets. In a few cases rolling was performed by field veterinarian and a few cases were fresh e.g. five animals which delivered live fetus.

All the animals were subsequently examined per rectum as well as per vaginum to ascertain the degree and type of torsion. Out of the 50 buffaloes, 40 animals had more than 180 degree of uterine torsion and in the remaining; it was less than 90 degrees. Similarly, there was pre-cervical torsion in seven animals and in the remaining 43 animals, post cervical torsion was observed. On rectal examination fetus was found live only in five buffaloes. After confirming the uterine torsion, the animals were administered inj. Avil (chlorpheneramine maleate, Intervet, India) @ 10 ml i/m, inj. Dexona (dexamethasone) 10 ml i/m, inj. Melonex 30 ml (meloxicam) @ 0.5 mg/kg body weight i/m, dextrose saline three liter intravenously, and inj. Ethamsylate (Maclote, Macnor) 30 ml i/m. After this treatment, the buffaloes were casted with forelegs and hind legs tied separately in lateral recumbency on the side of torsion. Subsequently on the upper side of the abdomen a wooden plank (15 feet length, 10 inches width) was fixed in oblique direction (Fig. 1). After fixing the plank on the animal, three persons stood on the plank (ground side) while one person applied pressure on the other end of plank (abdominal side) and then the animal was rolled rapidly in the same direction of the torsion. After each roll, the animals were examined per vaginum for the relief and uterus was detorted in all the animals after 2-3 rolls.

RESULTS AND DISCUSSION

Immediately after detorsion, water bag came out in 30 animals. Of these 30 animals, fetus was expelled within half an hour by applying traction in 25 animals while calving occurred spontaneously in 5 animals. In the remaining 20 cases, parturition could not occur because of incomplete cervical dilatation. These buffaloes were subsequently administered valethamate bromide (Epidosin) 10ml, inj. Estradiol valerate (progynon depot) 10 mg i/m

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and cervical massage was done with lukewarm normal saline. These buffaloes calved within 12 h of the treatment. Of the total 50 cases, 5 (10%) buffaloes delivered live calf whereas in the remaining 45 (90%) buffaloes, the fetuses were born dead. All the treated animals survived in the present study. However, Purohit *et al.* (2013) reported 90% survivability in buffaloes following rolling. Singh *et al.* (2013) reported a survival rate of 34.9% and 80% in dams following CS and also reported that the animals experiencing CS had a 45.1% lower survival rate compared to those treated with/ without partial fetotomy.

After removal of fetus, all the buffaloes were administered inj. Flobac SA (enrofloxacin, Intas Pharmaceuticals) @7.5mg/kg b. wt. i/m; inj. Tribivet (Intas) @ 10 ml i/m; inj. Mifex (calcium borogluconate), Novartis 450 ml i/v; and inj. Vetacef Plus (Vetcare, India) 4.5 gm i/m. After parturition, all the animals were given Cleanex bolus (nitrofurazone, metronidazole, urea, povidone iodine) @ 8 boli intrauterine and liquid Uterotone (uterine cleanser) @ 100 ml was given orally for 5 days.

Fast rolling of the dam casted on same side as that of torsion had been tried without planks with little success. All buffaloes in the present study were successfully detorted by modified Schaffer's method and all survived after detorsion. The Schaffer's method in which the dam is casted in lateral recumbency to the side of torsion and then with the help of a plank kept in an inclined manner on the abdomen of the animal, the fetus is immobilized. The animal is rolled to the other side as three people kept pressure on edge of plank by standing on it. Due to problem of slipping over of the plank during rolling the animal, modified Schaffer's method (that applies human pressure) was used. Pressure on the end of the plank that touched the ground was applied by 3-4 persons by standing on it while one person applied back pressure on the other end of the plank. This avoided slipping of plank.

Pattabiraman *et al*. (1979) reported that 73.4% of uterine torsion cases were successfully relieved by rolling and the maternal survivability rate was 97% as compared to 61.5% following CS. Prabhakar *et al*. (1994) reported higher survival rate in post cervical (87%) than pre cervical (54.5%) uterine torsion cases. Rolling the large ruminants is a traumatic procedure leading to internal haemorrhages. Thus to compensate loss of fluids due to haemorrhage and to relieve pain, fluids and non-steroid anti-inflammatory drugs were included in the treatment protocol in this study prior to rolling which might have contributed favourably to maternal survival. In this study, broad spectrum antibiotics and ecbolics were also given after detorsion to avoid complications such as septic metritis. Modified Schaffer's method (non-surgical) with abdominal pressure was found to be the most successful procedure for correction of uterine torsion in buffaloes and is safe, easy to handle and effective in field conditions.

Fig 1. Detorsion with modified Schaffer's method

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