

COMBINED TECHNIQUE OF CERVICOTOMY AND EPISIOTOMY TO DELIVER
ABORTED FETUS COMPLICATED WITH IMPERFECT CERVICAL DILATATION AND
CONGENITAL VULVAL STENOSIS IN A NON-DESCRIPT BUFFALO HEIFER

S. Prakash*, M. Selvaraju, K. Ravikumar, M. Palanisamy, S. Manokaran and R. Ezakial Napoleon

ABSTRACT

A non-descript buffalo admitted with the history of abortion with dystocia was examined and diagnosed as a case of dystocia due to abortion complicated with imperfect cervical dilatation and congenital vulval stenosis. The combined operation of cervicotomy and episiotomy were performed and a dead male emphysematous fetus was delivered by forced traction.

Keywords: *Bubalus bubalis*, buffaloes, cervicotomy, episiotomy, emphysematous, fetus, vulval stenosis

ewes and very rarely in other domestic animals. In cases of abortion, stenosis or atresia of cervix may occur and cervix may not dilate fully, which may be due to hormonal factors that prevent normal relaxation and dilatation of cervix (Roberts, 1971). In bovines, cervicotomy may be adopted in certain cases of imperfect cervical dilatation (ICD) rather than immediately resorting to caesarean operation (Pearson, 1971). The present report describes the successful per-vaginal delivery of an aborted male fetus complicated with ICD and congenital vulval stenosis by combined technique of cervicotomy with episiotomy approach in a non-descript heifer buffalo.

INTRODUCTION

Abortion is defined as a loss of the fetus between the age of 42 days and approximately 260 days. Pregnancies lost before 42 days are usually referred to as early embryonic deaths, whereas a calf that is born dead between 260 days and full term is defined a stillbirth. Abortion is a devastating condition associated with major economic loss in the bovine industry caused by various emerging and reemerging pathogens. Dystocia due to failure of cervix to dilate is seen occasionally in cows and

CASE HISTORY AND OBSERVATION

A three years old primiparous non-descript buffalo heifer was brought to the Teaching Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal with the history of eight month pregnant and having foul smelling serosanguinous discharge from yesterday. At the time of admission the buffalo was able to walk and was having severe and continuous straining. The general clinical examination of the buffalo recorded a body temperature of 39.5°C, respiration rate of

31 per minute, pale mucus membrane and voiding pellety mucus coated dung. The udder was not well developed and showing honey like secretion. Per vaginal examination revealed a dry and inflamed birth canal. The cervix was hard and thick and was able to pass the hand with difficulty. Careful examination of the fetus revealed an anteriorly presented aborted emphysematous fetus.

OBSTETRICAL MANAGEMENT AND DISCUSSION

Based on per vaginal examination, it was assessed that the cervical dilatation was not sufficient to deliver the fetus. Hence it was decided to perform cervicotomy to deliver the fetus. The birth passage was lubricated with cetrimide cream. Under low caudal epidural anaesthesia with 6 ml of 2% lignocaine HCl., the fetal head was brought to the cervix by applying long obstetrical hook in the inner canthus of the eye, so that the cervical folds were tightly engaged over the fetal head. Both the forelimbs and head were kept taut and about 5 cm incision was made on the right dorso-lateral aspect of the cervix involving only the circular muscles using Gunther's embryotome knife. While delivering the fetus a mild traction was applied to take out the dead aborted fetus but labial narrowness hindered the easy passage. Episiotomy was performed as it appeared that further traction will result in tearing of vulva. A 4 cm incision was made on the dorso-lateral aspect of the vulva using scalpel blade after locally anaesthetizing the area with 2% lignocaine hydrochloride aseptically. Subsequently, the dilatation of the cervix and vaginal passage was sufficient enough to deliver the aborted male calf (Figure 1) by careful manual traction. Following the delivery of the aborted fetus, the vulval

incision site was cleansed with povidone iodine and sutured with simple interrupted suture pattern using synthetic non absorbable suture material (Figure 2). Clinically the dam was treated with Inj. Streptopenicillin 5.0 gm, i/m, Inj. Meloxicam 150 mg, i/m, Inj. Chlorpheniramine maleate 300 mg, i/m, Inj. Oxytocin 30 IU, i/v, Inj. Calcium borogluconate 450 ml, i/v and Inj. 5% Dextrose Normal Saline 3 liters, i/v. The treatment with antibiotic, antihistamine and anti-inflammatory drugs along with intravenous fluid was continued for three more days.

The bovine cervix is composed of more muscular and fibrous tissue and tightly closed during pregnancy, may lead to severe dystocia if not properly relaxed and dilated (Roberts, 1971). Incomplete cervical dilatation (ICD) may occur due to inadequate preparation with estrogen and relaxin (Slossand Dufty, 1980). Ischemia of the cervical region may also be responsible for delayed or ICD during and following correction of uterine torsion. But in this present case the ICD is due to abortion. Cervicotomy is contraindicated if the cervix is thick and indurated as it might lead to extensive uterine tear (Noakes *et al.*, 2009). Asokan *et al.* (1993) successfully adopted cervicotomy and tracheolorrhaphy technique to treat irreducible uterine prolapse in buffaloes. The probable cause of ICD in the present case might be due to the ischemia and inflammatory changes that occurred consequent to abortion. The treatment approach in this case was episiotomy and traction following cervicotomy was in consonant with Noakes *et al.* (2009) recommendation that if it is obvious that the vulva is relatively small and that further traction on the fetus will cause rupture of the vulva and perineum diameter of the vulval opening may be increased by episiotomy. Hence, it may be concluded that in case of ICD and vulval stenosis,

cervicotomy approach combined with episiotomy can be adopted to relieve dystocia in buffaloes, instead of cesaerean section.

RESULT

Successful management of dystocia due to aborted fetus complicated with ICD and Vulval stenosis in a non-descript buffalo by technique of cervicotomy, episiotomy and forced traction.

REFERENCES

- Asokan, S.A., S. Balasubramanian and S.R. Pattabiraman. 1993. Cervicotomy and trachelorrhaphy - A new method to treat irreducible uterine prolapsed in buffaloes. *Indian Vet. J.*, **70**: 355-356.
- Noakes, D.E., T.J. Parkinson and G.C.W. England. 2009. *Veterinary Reproduction and Obstetrics*, 9th ed. Elsevier Publications, Canada. 239p.
- Pearson, H. 1971. Quoted. In Noakes, D.E., T.J. Parkinson and G.C.W. England. 2009. *Veterinary Reproduction and Obstetrics*, 9th ed. Elsevier Publications, Canada. 239p.
- Roberts, S.J. 1971. *Veterinary Obstetrics and Genital Diseases*, 2nd ed. CBS Publishers and Distributers, India.
- Sloss, V. and J.H. Dufty. 1980. *Handbook of Bovine Obstetrics*. The Willams and Wilkins Company, Baltimore, USA. p. 104-105.