



P-ISSN: 2349-8528

E-ISSN: 2321-4902

IJCS 2018; 6(3): 2561-2563

© 2018 IJCS

Received: 29-03-2018

Accepted: 30-04-2018

MK Kalita

PhD Scholar, Department of Animal Reproduction, Gynaecology and Obstetrics College of Veterinary Science, AAU, Khanapara, Guwahati, Assam, India

C Acharya

PhD Scholar, Department of Animal Reproduction, Gynaecology and Obstetrics College of Veterinary Science, AAU, Khanapara, Guwahati, Assam, India

B Chhetri

KVK Hailakandi, Indian Council for Agricultural Research for NEH Region, Chandpur, Halakandi, Assam, India

BC Deka

Professor, Department of Animal Reproduction, Gynaecology and Obstetrics College of Veterinary Science, AAU, Khanapara, Guwahati, Assam, India

KC Nath

Professor, Department of Animal Reproduction, Gynaecology and Obstetrics College of Veterinary Science, AAU, Khanapara, Guwahati, Assam, India

PK Das

PhD Scholar, Department of Animal Reproduction, Gynaecology and Obstetrics College of Veterinary Science, AAU, Khanapara, Guwahati, Assam, India

M Hussain

PhD Scholar, Department of Animal Reproduction, Gynaecology and Obstetrics College of Veterinary Science, AAU, Khanapara, Guwahati, Assam, India

Correspondence

MK Kalita

PhD Scholar, Department of Animal Reproduction, Gynaecology and Obstetrics College of Veterinary Science, AAU, Khanapara, Guwahati, Assam, India

International Journal of Chemical Studies

Effective management of a complicated case of uterine prolapse with uterine rupture in an indigenous cow

MK Kalita, C Acharya, B Chhetri, BC Deka, KC Nath, PK Das and M Hussain

Abstract

A pluriparous indigenous cow was presented with the history of normal delivery of a female calf followed by expulsion of placenta after 5 hours. The prolapsed mass was completely everted uterus and hanging down with edematous condition with rupture in its dorsal wall through which some parts of the intestine protruded out. The intestinal loops and prolapsed mass was replaced. The animal was treated with 3rd generation antibiotics, anti-inflammatory, anti-histaminic and other drugs. The case was managed by application of 8 knot suture. After treatment, animals recovered eventually and no prolapsed mass was seen even after removing of 8 knot suture after 6 day.

Keywords: cow, casting of wethers, post partum and uterine prolapsed

Introduction

Prolapse or eversion of uterus is also called ‘casting of wethers’ or casting of calf bed and is a common complication of third stage of labour in cow, buffalo, doe and ewe (Roberts, 1986; Joseph *et al.*, 2001; Selvaraju *et al.* 2004; Sharma and Dhami, 2007) [1-3]. It is a non-hereditary complication occurring immediately after parturition and occasionally upto several hours afterwards (Roberts, 1971) [4]. Prolapse is a disorder of ruminants, normally occurring in late gestation or immediately after parturition (Noakes *et al.*, 2009) [5]. The severity of condition varies with part of organ prolapsed, time elapsed, condition of tissue involved and clinical status of animal. The predisposing factors reported to cause prolapsed are hormonal imbalance, higher oestrogenic content in blood, hypocalcaemia, confinement for longer periods, relaxation of ligaments and mechanical factors such as increasing intra-abdominal pressure in late gestation and sloping byre floor when cattle are tethered. The excessive abdominal pressure on relaxing pelvic parts during recumbent portions favours slow and continual prolapse of initially vagina followed by closed cervix and then part of gravid uterus, twin pregnancy, vaginal infection specifically fungal infection, urinary infection etc. (Pandit *et al.*, 1982, Markandeya, 2011) [6, 7]. The present report puts on a case of uterine prolapse with uterine rupture in an indigenous cow and its successful clinical management.

Materials and Methods

History and clinical observations

An indigenous cow of 5 years of age with an average body weight of 200 kg was presented with normal delivery of a female calf followed by expulsion of placenta after 5 hours and appearance of red mass at the vulva. The cow was restless, anorectic, reduced water intake, increased pulse and respiration rate and in lateral recumbency. On clinical examination the uterus was found prolapsed and oedematous with rupture in its dorsal wall through which some parts of the intestine protruded out. The prolapsed uterus and the intestine were soiled with dung, soil, injured, lacerations, swollen, necrosis, reddening and there was a distinct abdominal distension.

Clinical Management

The rumen was punctured with trocar and canula for immediate relief from bloat. Lignocaine hydrochloride (2%) was injected epidurally. Urine was relieved by catheterization and also lifting prolapsed mass for removal of urine.

Keeping view of treatment, all reported cases were treated with three 'R' i.e., Reduction, reposition and retention of prolapsed mass. The prolapsed uterus was cleaned, washed with weak potassium permanganate solution (1%) very gentle washing was done. The blood clots, necrosed part, faeces, straw were removed completely from prolapsed mass. Pop-in spray was sprayed over prolapsed mass to reduce and contract edematous swelling. Cold ice pack was applied over the mass. Antiseptic powder sprayed on prolapsed mass. With these efforts, prolapsed was shrink and size was reduced and the protruded intestinal loop was replaced through the ruptured area and was closed by suturing with absorbable suturing material. The prolapsed uterus was then well lubricated with Lignocaine hydrochloride gel, Uterus was replaced little by little starting from portions nearest to vulvar lips. Due care was taken to prevent injury to exposed mass. Finally with the full extended arm of uterus was pressed forward beyond the cervical ring. Inward force was applied by fist for repositioning prolapsed mass and eight knot suture was applied over the vulva to prevent further complication. After complete repositioning of prolapsed mass, the animal was treated with fluid therapy, viz. warm Calcium borogluconate @ 450 ml i.v., Sodium bicarbonate, dextrose normal saline @ 1000 ml i.v. and Multivitamin @ 5 ml (Poly-vet) intramuscularly, chlorphenaramine maleate @ 10 ml total dose (inj. Avil), Meloxicam @ 0.5 mg/kg b.wt., i.m. (Melonex) for 3 successive days, Ceftiofur sodium @ 2.2 mg/kg i.m. for 5 days and Bloatinorm bolus orally. Supportive treatment with fluid therapy was continued for 3 subsequent days and vulvar suture was removed after one week. The cow regained its appetite by the third day of the treatment with complete recovery.



Fig 1: After cleaning and washing of prolapsed mass in indigenous cow



Fig 2: Before reduction of uterine prolapsed with rupture in indigenous cow



Fig 3: Ice pack application on prolapsed mass in indigenous cow



Fig 4: After total reposition of prolapsed mass in indigenous cow

Result and Discussion

The above protocol was found to be very effective in handling a complicated case of uterine prolapse with uterine rupture in cattle. Uterine prolapsed is associated with onset of uterine inertia during 3rd stage of labour and its sequel is haemorrhage, shock, septic metritis, peritonitis, infertility or death (Arthur *et al.* 1996) [8]. Some animals will develop hypovolaemic shock secondary to internal blood loss, laceration of prolapsed organ or incarceration of abdominal viscera (Potter, 2008; Murphy and Dobson, 2002)^[9,10]. The protruding tissues with their circulation impaired are prone to injury and infection. The resultant irritation causes expulsive straining efforts thus increasing severity of prolapse. Thrombosis, ulceration and necrosis of prolapsed organ, accompanied by toxemia and severe staining lead to anorexia, rapid deterioration in body condition and occasionally death. Complications of shock due to exposure of visceral organ might be responsible for death of animals (Noakes *et al.*, 2009) [5]. All animals recovered within 96 hrs of post complication and treatment and ceased straining completely and commence normal lactation and fertility. The intravenous administration of glucose and calcium borogluconate provide energy and muscular tonicity and contraction of smooth uterine musculature which helps to repositioning its normally and correct uterine inertia, respectively. Anti-inflammatory and anti-histaminic helps to correct pain and reduce inflammation. Parental administration of antibiotic helps to control secondary bacterial infection and to establish uterine hygiene. Handling of prolapsed organ invariably leads to tenesmus and therefore epidural anesthesia is mandatory which desensitized perineum, thus providing easy and painless manipulation of prolapsed mass. Application of ice packs caused softening of prolapsed mass and also moistened it, thus making manipulation and

repositioning much easier. (Tyagi and Singh, 2002) ^[11]. The prognosis of prolapsed uterus generally favourable for uncomplicated case where there has been no serious damage to uterus. The animal made to stand and uterus not severely injured prognosis for life of animal is good. In other cases with the animal unable to rise and condition complicated by shock, internal haemorrhage of intestines, the prognosis is usually from very poor to hopeless (Roberts, 1971; Burgess, 1975) ^[4, 12].

Conclusion

It was observed that the poor management, balanced diet, hygienic handling during parturition, and prompt treatment should definitely prevent further post partum complications in cows.

References

1. Arthur GH, Noakes DE, Pearson H. In Veterinary Reproduction and Obstetrics (Theriogenology), 6th edn. Bailliere and Tindal, London. 1996; 302-07, 384-89.
2. Burgess J. Uterine prolapsed in mare. Vet. Rec. 1975; 96:513.
3. Joseph, Cecilia, Kulasekar K, Balasubramanian S, Kathiresan D, Veerapandian C *et al.* An unusual complication of post partum uterine prolapsed in a she buffalo-A case report. Indian Vet. J. 2001; 78:57-58.
4. Markandeya NM. Reproductive Emergencies in Farm Animals. Intas Polivet. 2011; 12:142-152.
5. Murphy AM, Dobson H. Predisposition, Subsequent Fertility and Mortality of cows with uterine prolapsed. Vet. Record. 2002; 151:733-735.
6. Noakes DE, Parkinson TJ, England GCW. Veterinary Reproduction and Obstetrics. 9th edn. Saunders Publication, 2009.
7. Pandit RK. Indian Vet. J. 1982; 59:589-91.
8. Potter T. Prolapse of the uterus in the cow. UK vet, 2008, 13.
9. Roberts SJ. Veterinary Obstetrics and Genital Diseases, 2nd edn. CBS Publisher and Distributors, Delhi, 1971, 308-13.
10. Roberts SJ. Veterinary Obstetrics and Genital Diseases (Theriogenology). 3rd edn. Ithaca, New York, 1986.
11. Selvaraju M, Vijayanand KT, Prathaban R, Vijay D, Jagathessen RPN. Postpartum uterine prolapsed in goat. India J Anim. Reprod. 2004; 25:74-75.
12. Sharma S, Dhani AJ. Management of postpartum uterine prolapsed in a cow. Indian J Field Vets. 2007; 3:14-15.
13. Tyagi RPS, Singh J. A text book of Ruminant Surgery, 1st edition, 2002.