

Review Article

**A COMPREHENSIVE REVIEW ON POST-OPERATIVE CARE OF
DAM AFTER OBSTETRICAL OPERATION IN LARGE ANIMALS**

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Abstract: The present review explained about post operative management of large animal after obstetrical intervention. Full review based on personal observation learned in ward practices. Most of the time field veterinarian failed in management of large animal post-obstetrically. The present comprehensive review help to field veterinarian how to handle the post operative animal in field level.

Keywords: Care of dam, Ecbolic, Fluid therapy, Post operative, Large animals.

Introduction

Management of post-obstetrical animal is an art to save the animal. Most of the time post-obstetrically animal may die due un explainable causes. Obstetrician should rule out the what are all the possibilities that would be occur post-obstetrically death of the animal. So, the present review designed completely based on field and ward experience in large animal practices. The present comprehensive review help to field veterinarian how to handle the post operative animal in field level

1. Examination of presence of other fetus:

After successful delivery of the fetuses (Fetus), the dam's genital tract should always be examined for the presence of other (Fetus). Note- Remember that monotocous species can have twin and rarely more (Noakes et al., 2009)

2. Dehydration or Hypovolemia:

Post-delivery dehydration and Hypovolemia is commonly encountered in large animals. For correction of dehydration, administer either,

1. Dextrose Normal Saline (DNS)- 3 to 5 lit i/v.
2. Ringers Lactate (RL)- 2 to 3 lit i/v.
3. Multiple Electrolyte Solution (MES)- 2 to 3 lit i/v.
4. Rintose (D_{20%})- 1 to 2 lit i/v.

Combination of fluid therapy gives better results in obstetrical cases with animal in high stress.

If animal excessive bleeding with Hypovolemia shock, should administer Colloids (Heta Starch)- 2 lit i/v to support plasma volume maintenance Provide drinking water 30 to 40 lit to modulate the fluid dynamic status.

3. Post-operative Haemorrhage:

1. **Ecbolics:** Administer 25 to 30 IU Oxytocin or 5 ml of Nexbolic (Methyl ergometrine) to aid in uterine contraction lead to arrest of bleeding (uterine contraction obviously cause bleed vessels to contract, it aids in arrest of bleeding).

2. **Adrenalin Tampon:** It can be prepared by 3 to 5 ml of adrenalin poured over the gauze roll and applied over the bleeding point if noticed (Adrenalin will cause constriction of blood vessels by their sympathetic innervations action, it aids in arrest of bleeding).

3. **Ligation:** If Any vessels damage suture or ligation with absorbable with Catgut 2.No

4. **Genital tear:** Identify the point of tear and sutured with Catgut 2.No.

5. **Genital Prolapse:** If genital prolapse occur, managed with **3R Principle** (Roberts, 2004)

1. **Reduction** of Edema of the prolapsed mass with applying hypertonic solution (Powdered Salt, Sugar solution) or Spraying with *POP In Spray* or Pouring of Cold water or applying Ice Cubes. Followed by *suturing the lacerated part if present*.

2. **Reposition** of the uterus, cervix and vagina in their normal anatomical position by manual fist pressure over the prolapse mass.

3. **Retention** suture applied (*Vulval tape retention suture or Buhner's Suture / Buried purse string suture*) to prevent the recurrence of genital prolapse.

6. Overcome the Secondary bacterial infection:

Delayed cases or putrefied fetus or emphysematous fetus result in Toxaemia, Septicaemia. To overcome that,

1. Antibiotic therapy:

- **Streptopencillin-** 2.5 or 5.0 g for 5 days.
- **Ceftiofur-** 1.1 - 2.2 mg/kg b.wt for 4 days
- **Fortivir (Enrofloxacin)-** 30 ml.
- **Bovicillin-** 3.0 g, 4.0 g, for 5 days.
- **Intamox-** 3.5 g, 4.0 g for 4-5 days.

2. **Fluid Therapy:** Massive Fluid therapy should be indicated in septic/ toxaemic condition to dilute the toxin.

7. Pain Management:

- **Meloxicam**- 0.5 mg/kg s/c or i/m.
- **Flunixin Meglumine**- 1.1 to 2.2 mg/kg i/m or i/v
- **Melonex plus (Meloxicam & Paracetamol)**- 0.5 mg/kg i/m.

8. Uterine Involution:

- Milking of the animal (It aids in release of Oxytocin hormone from posterior pituitary, obviously lead to progress in involution).
- Allow the calf to suckle the mother (It induce early involution of uterus).
- Oxytocin- 20 - 25 IU i/m.
- Bol: Involon bolus- one strip (Contains 6 bolus) 2 per day p/o for 3 days.

9. Evacuation of debris or uterine content: In macerated cases after caesarean section or pervaginal delivery administration of PGF₂ alpha improve the evacuation and at the same time improve the immune system (Immuno-modulator action).

PGF₂ alpha- **Lutalyse- 25 mg i/m.**

Pragma- 500 µg.

10. Cleaning of the perineum: Fetal fluid adhere over the perineal region, that obviously attract the flies. So, cleaning the perineal region with tap water or Potassium Permanganate Solution (PPS) neatly.

11. Management of sutured area: In case caesarean section (CS) cases, the sutured area regularly cleaned with Normal Saline (NS) or Antiseptic Solution like Povidone Iodine; Chlorhexidine.

12. Suture removal: In CS cases the suture should be removed after 7-10 days.

13. Ecboolic administration: Improve the uterine contraction for evacuation of lochia and prevent RFM. Osteovet forte, Cal Sakthi, Calup gel, Pro she, Exapar.

14. Improve the Energy: Intalyte powder, Provide energy diet.

15. Intra-uterine bolus application: After handling of any obstetrical cases, place the **Furea bolus**- 4 boli for bovine; 2 boli- sheep & goat for prevent local intra uterine infection. **Ropitas** boli for prevention of RFM.

16. Nerve Damage: If any nerve damage happen tell the prognosis to the owner accordingly. That includes, **Obturator nerve paralysis, Gluteal nerve paralysis, Peroneal nerve paralysis.**

17. Anti-Histaminic: To prevent allergic reaction. **Histanil (CPM)- 15 to 20 ml.**

18. Post-detorsion Therapy: (Thangamani et al., 2018)

1. **Massive fluid therapy**- DNS, RL, Multiple Electrolytes, Colloids (Hetastarch)
2. **Broad spectrum antibiotics**- Streptopencillin 5.0 gm, Continued for four more days.
3. **Spasmolytic / Analgesics**- Flunixin Maglumine 1.1mg/kg. b.wt for 3 days.
4. **Calcium supplements**- Mifex-350 to 400 ml slow i/v on the day of detorsion.

Osteovet forte 100 ml p/o daily for 10 days.

5. **Liver tonics and iron tonics**- Liv-52, Sharkoferrol
6. **Anti-oxidant therapy** with Ascorbic acid, Selenium & Vit-E- 10 ml at weekly twice for three weeks.

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