

## Retention of Placenta (RoP) in Animals

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Retention of foetal membrane (RFM) is a common complication in relation to parturition. Incidence varies from 7-21 per cent. Normally placenta is expelled within 6-7 hours after parturition and retention of placenta is defined where the retention of placenta goes beyond 8-12 hours post parturition. It is usually associated with metritis, reduced milk yield and subsequent poor fertility.

This condition is considered pathological and is primarily either due to uterine inertia or due to pathological condition of the placenta which in turn results in the failure of the foetal villi to detach themselves from the maternal crypts and results into retention of foetal membranes. The etiological factors of RFM are nutritional, managemental, endocrinal and infectious in nature. Normally the

membranes should be expelled within 4-5 hours after birth of the calf but owing to intricate cotyledonary attachments these are often retained for long periods finally undergoing decomposition. Hasty manual attempts for its removal are followed by serious consequences.

### Detrimental Effects of Retention of Placenta

1. Drop in milk production
2. Delayed uterine involution
3. Chronic endometritis
4. Decreased conception rate
5. Repeat breeding
6. Acute septic endometritis
7. Toxemia, which may be fatal.
8. Metritis and Pyometra terminating in infertility. The cotyledonary type of membrane attachments do not yield to ergot or estrogen therapy.

### Treatment

#### Use of Uterine Cleansing Agent

Soon after parturition uterine cleansing agent may be drenched or fed to the animal for expulsion of placenta, helping in involution and preparing healthy uterus for next conception. *Involon* (Natural Remedies) – 200 ml on first day followed by 100 ml for 3 days.

*Exaper liquid* (Excell) – 200 ml BID on first day followed by 100 ml daily for 3 days.

*Uterotone* (Cattle Remedies) – 100 ml BID can be used to expedite the expulsion of placenta.

*Hormotone* (Novartis) – 450 ml orally immediately after delivery within 4-5 hours, if RoP persists 2nd dose may be given after 6 hours.

Ayurvedic uterine ecboic powder like *Replanta* (Indian Herb) 50 g orally BID for 3-4 days helps in expulsion of placenta, cleans up lochial discharge and useful in metritis.

### Manual Removal

If the placenta is not expelled in spite of above treatment the placenta should be manually removed. Manual extraction should be done with great care and proper hygienic measure. During separation of the retained placenta, caruncles should not be destroyed.

### Antimicrobial Therapy

A wide range of antibiotics can be used locally (I/U) to control possible bacterial infection. Tetracycline may be used @ 2-6 g I/U. Cephalixin, Metronidazole, and Gentamycin are commonly used. The antibiotic may be used as an infusion in 200 to 500 ml of normal saline depending upon the size of uterus. Bolus C-flox TZ, I/U (Intas) or C-Flox uterine liquid (Intas) – 50 ml I/U daily. Ledexin (Legend) or Lexin or Lixen I/U (GSK) may be infused.

Recent study revealed the administration of the combination of a beta receptor blocker e.g. Carazolol, Oxytocin hormone and an antibiotic e.g. Amoxicillinum Anhydricum + Acidum (clavulanicum) is favourable in terms of the expulsion of foetal membranes in cattle with retained placenta. Doses: Beta receptor blocker e.g. Carazolol, Suacron @ 5 mg (by IV), Oxytocin 15 I.U. and Amoxicillin @ 8.75 mg by IM. *Pessaries* like Uren vet (Deys vet), Furex (Excell), Utrox bolus, Furan bolus (Himachal), C-flox TZ may be placed in the uterus at least for 3 days after manual extraction of placenta.

### Intrauterine and Parenteral Antibiotics

If putrefaction has already started the placenta should be removed using sterile hand gloves. In such case both intrauterine as well as parenteral antibiotics should be used. Inj. Ciptec (Cipla) or Inj. C-flox (Intas) – 10-15 ml I/M daily for 3-5 days and I/U infusion of C-flox Uterine liquid 50 ml. Inj. Enrofloxacin viz. Inj. Quinintas (Intas), Inj. Enrocip (Cipla), Inj. Enrocip

(Vetnex) Inj. Enrored (Reedson) @ 1 ml/20 kg body weight for 5-7 days and infusion of Enrofloxacin dissolved in distilled water should be done. Metronidazole injectable solution along with Inj. Gentamycin (like Inj. Gentex/Gentabiotic) may be infused by IU route and Inj. Gentamycin may be used parenterally.

**Use of Hormones:** Uterokinetic hormone like Oxytocin @ 20 IU by IM route at 3-4 hours interval may be tried but not more than 3 days. Estradiol or Stilbosterol may also be used. To reduce pain, oedema, swelling and inflammation – A3 Vet bolus (Brihans), Melonex bolus (Intas), Oxalgin NP bolus (Zydus Sarabhai) 1-2 bolus; Inj. Meloxicam, Inj. A3 Vet (Brihans), Inj. Melonex (Intas) 15-20 ml by IM route may be administered for 2-3 days.

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