UTERINE PROLAPSE IN COWS

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Uterine prolapse is one of the complications of parturition in the cattle and buffalo cow, which required rapid and effective treatment to ensure the survival, recovery and continued fertility of the affected animal. The incidence may be up to 0.5-1.0 % of calvings. It usually occurs immediate after calving however it may also occur several days after parturition. Uterine prolapse occurs when the previously gravid uterine horn becomes invaginated/ folded in after calving and protrudes from the vulva. It is also termed as eversion of uterus or casting of "wethers" or casting of calf bed. In layman term also called as Bhelly Nikalna or Phool Nikalna.
The following predisposing factors have been suggested for uterine prolapse in the cows:

1. Prolonged dystocia
2. Paresis.
3. Fetal traction
4. Fetal oversize
5. Retained foetal membranes
6. Hypocalcaemia
7. Chronic disease

CLINICAL SIGNS

The clinical signs of uterine prolapse are dramatic and obvious. Animal usually recumbent but may be standing with the uterus hanging up to the hock joint. The fetal membranes or mucous membranes of the uterus is exposed and usually soiled with feces, straws, dirt and or blood clots unless very recent case. In the period immediately after the prolapse occurs the tissues appear almost normal, but within a few hours they become enlarged and oedematous. Urine may retain in such cases. Some animals may appear healthy, but most of animals will exhibit signs of varying degrees of hypocalcaemia: weakness, depression, subnormal temperature, anxiety, struggling, prostration and coma.

Some animals will develop hypovolaemic shock secondary to internal blood loss (rupture of uterine and/or ovarian blood vessels), laceration of the prolapsed organ or incarceration of abdominal viscera. Signs of shock, such as pale mucous membranes, reduced capillary refill time and tachycardia are often associated with a grave prognosis.

TREATMENT

Uterine prolapse remains one of large animal practice's true emergencies, with rapid intervention improving prognosis. Owners should be instructed to keep the animal quiet and the prolapsed mass clean and moist. If the animal is showing signs of severe hypocalcaemia, calcium can be administered prior to replacement. It is possible to replace the prolapse in the standing animal, if difficulty is encountered the animal should be cast and replacement should be undertaken. The specific treatment of uterine prolapse is the subject of much debate and there is considerable individual variation about the techniques and approach of case. However, it must

cover under three major steps viz. Reduction of size, Replacement in the original position and Retention of prolapsed mass.

A caudal epidural anaesthetic is administered to relieve tenesmus, allow easier reduction and replacement of the prolapsed mass and ensure painless procedure to animal.

Reduction, Replacement and Retention of prolapsed mass

The cow should be positioned in a manner to facilitate replacement of the prolapsed mass. As stated earlier, it is possible to replace the prolapse in the standing animal. Animals that are recumbent should be placed in sternal recumbency, with their hind legs pulled behind them - the 'frog-legged position'. Pulling the hind legs caudally provides a mechanical and gravitational advantage by tipping the pelvis forward. The placenta should be removed gently, if retained, as the oedematous placentomes allow easy separation of cotyledons from caruncles.

Following removal of the placenta the uterine surface should be cleansed with dilute antiseptic solution. Fomentation with ice, hypertonic solutions of sugar or any water absorbent can be helpful in reducing the size of mass. The prolapsed organ should be elevated to the level of the ischium; this enables easier reduction and helps relieve vascular compromise and retention of urine. Elevation can be achieved by having one or two assistants suspend the organ in a sheet or towel, or by having an assistant sitting on the cow's sacral region, facing backwards holding the organ upwards.

Replacement begins at the cervical pole of the organ (closest to the vulva). The organ is gently pushed back into position, taking care not to traumatize the friable endometrium or uterine wall. Once replaced it is important to ensure complete eversion of the horns. Some practitioners will use a bottle as an 'arm extension' to help ensure complete eversion of the horns. Following replacement, temporary closure of the vulva with a purse string or Buhner's sutures can be performed for retaining prolapsed mass. The rope truss can also be used for retention. In the author's experience, as long as eversion of the uterine horns is complete it is unnecessary to suture the vulva. Administration of oxytocin prior to replacement may facilitate the reduction. Some clinicians prefer to administer oxytocin after the reduction of prolapse as the already contracted organ is harder to manipulate.

Hysterectomy/ amputation of prolapsed uterus: It is advised only when replacement is impossible or when it is quite certain that replacement of a badly torn, lacerated, necrotic, infected uterus would result in death.

Post operative care with the systemic injections of antibiotics, analgesics, anti inflammatory, anti histaminic as well as local dressings at sutured site and general management is also very important after correction of prolapse. Supplementation of utero-tonics like calcium supplements, oxytocin etc. may hasten the recovery. Animal should be housed in such floor so that hind portion will be elevated and the diet should also be restricted for few days. Animals should allow gentle walking and avoid any cause of straining.

PROGNOSIS

Prognosis is generally favourable for uncomplicated cases where there is no serious trauma or damage to the uterus encountered. Primiparous animals were found to have a better survival rate. The favourable prognosis found in the absence of severe hypocalcaemia. Despite the favorable prognosis it is also important to consider the long-term effects on fertility. It may also increase the culling rate for infertility on subsequent fertility. The calving-to-conception interval may be longer in animals treated for uterine prolapse.