

## **SURGICAL AND THERAPEUTIC MANAGEMENT OF DYSTOCIA IN BOVINES**

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**Abstract:** A 4 and 5 year old crossbred cow with full term pregnancy were brought to the department of Veterinary Surgery and Radiology with history of straining for last 12 to 24 hours. Clinical examination revealed ruptured water bag without further progress in parturition. Per vaginal examination revealed breech presentation of calf in one case and in another there was lateral deviation of head. Caesarean section was performed by giving left ventrolateral oblique incision under sedation and posterior epidural anaesthesia using 2% lignocaine hydrochloride. Dead foetus were delivered by applying manual traction and uterus and abdominal incision were closed in routine manner. The animal recovered uneventfully following therapeutic treatment which included inj. Dextrose 10% (10 liters for 3 days), inj. Intacef tazo (4.5 gm for 5 days I/V), Melonex and Tribivet (10 ml for 3 days I/M) and intrauterine urea (4 bolus) pessaries on operative day.

**Keywords:** Bovines, Caesarean section; Cow; Dystocia; Foetus.

### **INTRODUCTION**

Dystocia refers to abnormal or difficult birth of foetus. It is expected to occur in about 10-15 % of first calf heifers and in 3-5% of mature cattle. Faulty disposition of foetus has also been reported as cause of dystocia (Noakes *et al.*, 2009). Breech presentation is when both hind legs are retained in uterus and on per-vaginal examination only calf's tail is recognised. Dystocia due to lateral deviation of head and breech presentation are commonest type of ruminant dystocia (Arthur *et al.*, 2001). By using mutation and traction such cases can be rectified. However in extreme cases, caesarean section is one of the most common surgical procedure performed by veterinarians as it has a high maternal and foetal survival rate (Schuijt and Van der, 2000). An immediate decision to perform a caesarean section is important for successful surgery. This describes the surgical and therapeutic management of dystocia in bovines.

## **HISTORY AND CLINICAL OBSERVATION**

### **Case 1**

A 4 year aged crossbred cow was referred to in Department of Veterinary Surgery and Radiology with history of full term completion and straining since 12 hr with difficulty in parturition. On clinical examination ruptured water bag was found. There was slight increase in body temperature and respiration. The feeding and water intake was reduced. Per-vaginal examination revealed cervix to be fully dilated and presence of foetus tail in the birth canal. There was bilateral hip flexion along with abnormal distension of abdomen. The foetus was dead as no anal reflexes were present. Vaginal manipulation was impossible because the calf was engaged in the maternal pelvis. Therefore, the case was diagnosed as dystocia as foetus was in breech presentation having both the legs inside the uterus ventrally.

### **Case 2**

A 5 year old crossbred cow with history of full term pregnancy was brought to Department of Veterinary Surgery and Radiology and was straining from last 24 hour (Figure 1) Earlier many attempts to relieve cow from dystocia were made by local veterinarian by mutation and traction but foetus could not be expelled out. Per-vaginal examination revealed fully dilated cervix and the foetus was found in anterior presentation having extreme left lateral deviation of head and neck. So it was decided to perform caesarean section.

### **Surgical Treatment and Discussion**

After aseptic preparation, caesarean section was performed by giving left ventrolateral oblique incision under posterior epidural anaesthesia along with local infiltration using 2% lignocaine hydrochloride in lateral recumbency. A 25-30 cm long incision was made on left ventral side parallel to milk vein and abdominal cavity was opened (Figure 2). After opening of parietal peritoneum, huge amount of straw coloured fluid expelled out forcefully and then the greater curvature of the uterus was partially exteriorized and incised (Kumar, 2007). In case-1 having breech presentation, the dead foetus was delivered by gentle traction through uterine incision by grasping both forelimbs. In case-2, hind limbs of foetus were grasped and dead foetus was removed through uterine incision by applying manual traction (Figure 3 and Figure 4). After removing dead foetus, Furea bolus (4 bolus) was instilled into the uterus of both the animals. The uterine incision was closed starting from cervical end with double row of continuous lambert sutures using chromic catgut No 2. (Figure 5) and placed in the abdominal cavity. The laparotomy incision was closed as per standard technique in both the cases (Figure 6). Animal was kept under observation for next 3 days. Post operative care was

done with inj. Dextrose 10% (10 litres for 3 days), inj. Intacef tazo (4.45 gm for 5 days I/V), Melonex and Tribivet (10 ml for 3 days I/M). Sutures were removed on 10<sup>th</sup> post-operative day. Both animals recovered uneventfully. In bovine 95% of foetuses are believed to be delivered in anterior presentation. The occurrence of bilateral hip lock condition is seen in ruminants and constitute severe type of dystocia. Maternal survival rates following caesarean operation are high; most survey report 90-98% dam survival (Arthur *et al.*, 2001). The most significant achievement in both cases was that after completion of caesarean section the cows stood up smoothly. A week later, owner reported that the cows showed uneventfully recovery. Both the cow presented were analyzed as emergency condition. Immediate decision was taken to perform caesarean section and post-operative care was managed successfully. There are many reports which indicate that fertility and milk production is compromised on performing caesarean section (Berkema *et al.*, 1992)

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Fig.1 Restraining of cow in right lateral recumbency



fig 2. Left Ventro Lateral Oblique abdominal incision



Fig.3 Foetal removal from uterus of cow



Fig 4. Dead foetus removed from uterus of cow



Fig. 5 Suturing of uterus of cow



Fig-6. Post-operative dressing of surgical site