Dystocia due to Disproportion Maternal Pelvis in a Cow and Its Management
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Rec.Date: Mar 06, 2014 11:58
Accept Date: Apr 11, 2014 22:00

Abstract
One non descriptive cow in her first parity was presented with history of dystocia. Per-vaginal examination revealed presence of emphysematous foetus with deformed maternal pelvis leading to squeezing of birth canal. So immediately planned for caesarean section. Required padding of sterile drapes around the gravid uterus was made to avoid contamination of abdomen by the uterine content and then the dead and emphysematous fetus was removed. Laparotomy wound was closed as per routine manner. Post-operatively administration of antibiotics, analgesics, fluid therapy and regular wound dressing were done till healing. After 12 days of operation skin sutures were removed and the cow recovered well.

Key words: Cow; caesarean section; deformed pelvis; dystocia.

Introduction
Dystocia in cattle is very common due to both maternal and foetal origin and if corrective measures like foetal mutation and extraction being failed, caesarean operation is recommended (Samanta, 2011). In cow disproportion between the foetal size and pelvic diameters are common, especially in primipara. Fractures and exostoses of the pelvis, small size of the pelvis due to breeding in very young age or due to improper rearing with resultant stunting of body growth resulting to dystocia (Roberts, 2004). The present report communicates the management of dystocia due to disproportion maternal pelvis in a cow.

Case History and Observations
A four years old non descriptive cow in its first parity was presented with history of difficulty in parturition since five hours and the cow was at her full term of gestation. Both the forelimbs of foetus were pulled out by the local practitioner by applying traction and failed in bringing the foetus to outside (Fig. 1). Per-vaginal examination revealed fully dilated cervix with a dry birth passage. The foetus was
dead and in emphysematous condition. Attempts were made by mutation and traction but foetus could not be expelled. The vaginal passage was narrow with small size pelvis and condition of the cow was not so good, so immediately it was decided to do caesarean section.

**Treatment and Discussion**

Intravenous fluid therapy with dextrose normal saline and normal saline solution was administered before operation. The animal was restrained on a soft straw bed in lateral recumbence. The left flank was prepared aseptically for surgery. Operation was performed under local linear infiltration along the proposed site of incision with 2% lignocain HCL solution. Skin incision was made on left lower abdominal oblique site. Individual muscles were separated as per grid technique and peritoneum was incised to expose the abdominal cavity. Gravid uterus was carried out manually and was covered with sterile drape. One 10 inches incision was given on the greater curvature of uterus from ovarian end forward the cervix avoiding the cotyledons. Sufficient wrapping of sterile drape around gravid uterus was given to avoid contamination of abdomen by uterine content. The dead foetus was pulled out from the incised uterus by holding the hind legs with gentle traction (Fig. 2). The placenta was removed gently from the uterus and the uterus was thoroughly cleaned and washed with normal saline. The uterus was closed by using chromic catgut no-2 suture material in cushing pattern after placing 4 uterine Furea bolus (Nitrofurazone and Urea, Pifizer ltd) inside the horn. Muscle layers were closed as per standard manner and skin incision was apposed by nylon suture. Post-operatively antibiotics inj.Ceftriaxone and Tazobactum @ 10 mg/kg body weight for seven days, anti-inflammatory analgesic inj. Meloxicam @ 15 ml for five days were administered intramuscularly. Dressing of suture line twice a day with antiseptic lotion was also carried out. After 12 days of operation skin sutures were removed and the cow was recovered well.

![Fig. 1. Cow showing dystocia](image1)

![Fig. 2. Emphysematous foetus](image2)
The recovery of cow after surgery was more than 80% for dams where emphysematous foetuses were delivered by caesarean section (Vandeplasche et al., 1963). There are so many reports which indicate that fertility and milk production is compromised on performing caesarean operation (Patterson et al., 1981; Barkema et al., 1992). But in the present case as the calf was dead, attempts were taken for daily milking to prevent udder oedema and mastitis. The cow was also gained its normal fertility after six months. Dystocia from pelvic origin of the dam is very rare and there is no alternative of caesarean operation to save the life of dam as well as foetus (Samanta, 2011). Foetotomy was not performed here as the calf was so much large and to avoid excess stress on the cow by traction through the deformed pelvis. So immediate decision should be taken for doing caesarean section in such cases otherwise prolonged period of emphysematous foetus inside uterus may damage the uterus and also cause infertility of dam.

References