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Chhavi Gupta
Assistant Professor, Veterinary Clinical Complex Veterinary College and Research Institute, Tirunelveli, Tamil Nadu, India

S Kokila
Assistant Professor, Department of Veterinary Surgery and Radiology Veterinary College and Research Institute, Tirunelveli, Tamil Nadu, India

R Ramprabhu
Professor and Head Veterinary Clinical Complex Veterinary College and Research Institute Tirunelveli, Tamil Nadu, India

Corresponding Author:
Chhavi Gupta
Assistant Professor, Veterinary Clinical Complex Veterinary College and Research Institute, Tirunelveli, Tamil Nadu, India

Successful management of dystocia due to foetal dropsy in a Holstein Friesian cross bred cow

Chhavi Gupta, S Kokila and R Ramprabhu

Abstract
The successful management of dystocia in a 7 year old pleuriparous Holstein Friesian Cross Bred Cow with foetal ascites which is dropsy of the peritoneum and abdominal viscera due to diminished urinary excretion is presented for record.

Keywords: Holstein Friesian cross bred cow, wry neck, foetal ascites, dropsy, dystocia

Introduction
Dropsical conditions had been discussed as dropsy of placenta i.e. hydroallantois and hydroamnios or dropsy of foetus which includes foetal ascites, fetal anasarca and hydro cephalus. These conditions are commonly reported as the causes of dystocia in all the species but mostly in cattle [1]. Foetal Ascites is dropsy of the peritoneum frequently associated with reduced urinary excretion or output, cystic kidneys, dropsical condition of the uterus, mesotheliomas of the foetal abdomen and brucellosis [2, 3]. Accumulation of fluid in the peritoneum may occur either due to the overproduction or insufficient drainage of peritoneal fluid. Lymphatic Obstruction may attribute as the reason which prevent disposal of peritoneal fluid [4]. This communication presents a case of dystocia due to foetal ascites in a Holstein Friesian Cross Bred Cow.

Case Report
A five year old, pleuriparous Holstein Friesian Cross Bred Cow weighing 380kg was presented to the Veterinary Clinical Complex, Veterinary College and Research Institute, Tirunelveli with a history of difficulty in parturition. Owner reported that the water bags had ruptured 12 hrs. before and was attended by local veterinarian but animal is unable to deliver the foetus. Physical examination revealed animal in sternal recumbency, dull, frequent straining and extension of head and forelimbs of dead foetus in the birth canal. Traction of head and forelimbs after snaring did not help in reliving dystocia. Per vaginal examination revealed fully dilated cervix, tensed and enlarged foetal abdomen which is wedged in the pelvic inlet.

Management and Treatment
Inj. Lignocaine Hydrochloride (2% 3.4 ml) was injected epiduraly at sacro-coccygeal region to abolish the straining. A large incision was made behind the coastal arch and last two ribs were broken down with the help of large obstetrical hook to reach the abdomen. Further with the help of fetotomy knife abdominal muscles were torn and more than 10lts amber colour peritoneal fluid was evacuated, subsequently the size of foetus reduced and dead female foetus was delivered per vaginally with gentle traction (Figure 1.). Inj. Oxytocin 25 I.U. was administered intramuscularly followed by 300ml Calcium Borogluconate was administered intravenously. Post-operatively animal was treated with Inj. Ceftriaxone 3 g. (IM), Normal saline (2 liters, IV), Ringers Lactate (2 liters, IV) and Inj. Flunixin Meglumine (8 ml, IM) and 100 ml Involon Strong (herbal uterotonic) (orally) for five consecutive days. Animal had uneventful recovery.

Discussion
In the present case examination of foetal visceral organs revealed macroscopically normal liver, lungs, rumen but the intestines were filled with syrupy thick brownish fluid with cystic

kidneys. This finding is in agreement with the study of Malarkannan *et al*. [5] and Ravikumar *et al*. [6] which suggests cystic kidney results in diminished urine excretion, causes the accumulation of fluid in the peritoneum and abdominal visceral organs.

Roberts (1971) [1] and Krishna kumar *et al*. [7] suggested an incision on abdominal wall of foetus by using castrating knife and incision near the umbilicus using long obstetrical hook respectively to relive the foetus per vaginally. Patel *et al*. [8] reported a case of foetal ascites in a buffalo which was managed with an incision on abdominal wall with Stalfor's knife. In this case, an oblique incision was made on the coastal arch and last two ribs were broken down to make the access to the abdominal cavity of the foetus is in agreement with Ravikumar *et al*. [6] and abdominal muscles were torn with the help of fetotome knife sufficient to reduce the size of the foetus. Vidya Sagar *et al*. [9] reported a case of wry neck along with foetal ascites in a graded Murrah buffalo delivered by caesarean section, in our study due to the abdominal incision and removal of foetal fluid reduced the size of foetus followed by per vaginal delivery which is in agreement with Ravikumar *et al*. [6].

Fig 1: Dead foetus with enlarged abdomen

Conclusion

The present case documented successful management of dystocia due to foetal ascites in a Holstein Friesian Cross Bred Cow.

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