



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2021; 10(6): 930-931

© 2021 TPI

www.thepharmajournal.com

Received: 05-03-2021

Accepted: 15-05-2021

M Periyannan

Post Graduate Scholar, Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India

M Selvaraju

Professor and Head, Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India

K Senthilkumar

Assistant Professor, Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India

Abhishek Subhash Gawhane

Post Graduate Scholar, Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India

M Palanisamy

Professor, Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India

D Gopikrishnan

Assistant Professor, Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India

Corresponding Author:

M Selvaraju

Professor and Head, Department of Veterinary Gynaecology and Obstetrics, Veterinary College and Research Institute, Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, India

Rare incidence of dystocia due to fetal Anasarca with ascites in a jersey crossbred heifer

M Periyannan, M Selvaraju, K Senthilkumar, Abhishek Subhash Gawhane, M Palanisamy and D Gopikrishnan

Abstract

A full term pregnant Jersey crossbred heifer was presented with history of dystocia. The condition was found to be fetal anasarca with ascites and the fetus was delivered by mutation operation, Abdominocentesis and simple traction.

Keywords: Fetal anasarca, fetal ascites, jersey crossbred, dystocia, abdominocentesis

Introduction

Fetal anasarca is a condition which commonly interfere the second stage of the labour if fetus carried to term and it was characterized by excessive fluid accumulation in subcutaneous tissues most often in head and hind limbs. Fetal ascites may cause the dystocia and it involves excessive accumulation fluid in peritoneal cavity (Windsor, 2019) [10]. Fetal Anasarca is seen most frequently reported in cattle (Selvaraju *et al.* 2008) [8] and incidences of fetal anasarca with ascites were occasional and such occurrences were reported by Selvaraju *et al.* (2008) [8] in a sheep and Selvaraju *et al.* (2018) [9] in a goat. Considering the rarity, present communication reports fetal anasarca along with ascites and its successful management in a Jersey heifer.

History and clinical examination

A full term pregnant Jersey crossbred heifer was brought to Teaching Veterinary Clinical Complex (TVCC), Veterinary College and Research Institute, Namakkal with the history of active labour since last 8 hours after the rupture of water bag without any progress in the parturition. Further, owner reported that early attempt to deliver the fetus by a practicing veterinarian was futile. On general examination animal was in standing posture and it was found to be active and alert. Vaginal examination revealed that the fully dilated cervix and fetus was in posterior longitudinal presentation, dorso-sacral position, with bilateral hip flexion (Breech Presentation). Thorough examination of the fetus revealed enlarged abdomen with extensive fluid accumulation and fluctuating swelling was noticed on the both hind limbs.

Treatment and Discussion

The animal was restrained under epidural anaesthesia by injecting 3 ml of 2% Lignocaine HCL in 1st inter- coccygeal space. Then bilateral hip flexion was corrected by mutation operation and snares were applied on both extended hind limbs after the lubricating the birth canal with cetrimide cream. About 4 inch incision was made in the fetal ventral abdomen using long obstetrical hook just behind the umbilicus. About 10 to 12 litres of clear amber coloured ascitic fluid was released. As soon as the fluid escaped, dead male fetus was delivered, by simple traction. Fetal membranes were removed following fetal delivery. Immediately the animal was treated with inj. dextrose 1 lit (i.v), calcium borogluconate 450 ml (i.v) and inj. oxytocin 30 IU (i.m), inj. enrofloxacin 15 ml (i.m) and inj. meloxicam 10 ml (i.m). Except calcium all other drugs were administered consecutively for 3 days and the animal recovered uneventfully.

Gross examination of fetus revealed that it was not fully grown (Fig 1). Generalised edema was noticed all over the body and excessive fluid accumulation was noticed in abdominal cavity. Post-mortem examination revealed excessive fluid accumulation in subcutaneous tissues (Fig 2), necrosis of both the kidneys and none other abnormality could be found (Fig 3).

The condition fetal anasarca is caused by autosomal recessive gene and most probably expelled as dead fetus (Roberts, 1971) ^[4] and it specifically affects the lymph node development (Selvaraju *et al.* 2008) ^[8]. Teratological occurrence or developmental arrest in ovum may result in the death or malformation of the neonatal individuals and causes the dystocia (Manokaran *et al.* 2018) ^[2]. Most often anasarca fetus presented posteriorly and prolonged the second stage of the labour (Noakes *et al.* 2001) ^[3]. In mild condition, simple traction favoured the delivery of the fetus (Selvaraju *et al.* 2004) ^[7]. In this present case, fetus was delivered by abdominocentesis followed by 2 men traction, since the anasarca was associated with ascites and it was not possible to deliver by simple traction. The occurrences of fetal ascites alone were reported by Selvaraju *et al.* (2001) ^[6] in a buffalo, Kumaresan *et al.* (2013) ^[1] and Ravikumar *et al.* (2013) ^[2] in cows. However, in the present communication both ascites with anasarca was reported due to its rare occurrence.

Summary

Unusual occurrence of fetal anasarca with fetal ascites and its successful per vaginal delivery in a Jersey heifer was reported.



Fig 1: Fetal anasarca with ascites



Fig 2: Excessive fluid accumulation in subcutaneous tissues



Fig 3: Necrosis of fetal kidney

References

1. Kumaresan A, Selvaraju M, Sivaraman S, Ravikumar K, Ezakial Napoleon R, Prakash S. Dystocia due to fetal ascites with breech presentation in a Holstein-Friesian cow. *Shanlax International J Vet. Sci* 2013;1:52-53.
2. Manokaran S, Selvaraju M, Palanisamy M, Napoleon RE, Ravikumar K, Prabakaran V. Dystocia due to Bulldog monster with fetal anasarca in a ewe. *Indian Vet. J* 2008;09(5):96-97.
3. Noakes DE. In *Text book of Arthur's Veterinary Reproduction and Obstetrics*. (8th Edn.) Ed: GH, Noakes DE, Parkinson TJ and England GCW. 2001. W.B. Saunders, London 2001.
4. Roberts SJ. *Veterinary Obstetrics and Genital Diseases*, 2nd Edn, CBS Publishers and distributors, New Delhi, India 1971, 180-183.
5. Ravikumar K, Selvaraju M, Kumaresan A, Sivaraman. Dystocia due to fetal ascites in Jersey cross bred cow. *Shanlax International J Vet. Sci* 2013;2:15-16.
6. Selvaraju M, Kathiresan D, Karunakaran M, Veerapandian C. Dystocia due to fetal ascites in a non-descript buffalo. *Cheiron* 2001;30:180.
7. Selvaraju M, Vijay D, Chandrahasan C. A case of foetal anasarca in a sheep. *Indian Vet. J* 2004;81:590-591.
8. Selvaraju M, Palanisamy M, Ravikumar K, Prabakaran V, Ravi R, Napoleon RE *et al.* Dystocia due to fetal anasarca with ascites in a sheep. *J Vet. Animal sci* 2008;39:62-63.
9. Selvaraju M, Varudharajan V, Prakash S, Ravikumar K, Senthilkumar K. Bull dog monster dystocia with *Shistocephalus fissilabrus*, fetal ascites and anasarca in a doe. *Indian Vet. J* 2018;95(11):57-58.
10. Windsor P. Abnormalities of development and pregnancy In: *Text book of Veterinary Reproduction and Obstetrics*. (10th Edn.) Ed: Noakes, D.E. Parkinson, T.J. and G.C.W. England, Elsevier, China 2019, 189.