



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2021; SP-10(8): 26-27

© 2021 TPI

[www.thepharmajournal.com](http://www.thepharmajournal.com)

Received: 01-05-2021

Accepted: 15-07-2021

## K Sudha Rani

Assistant Professor, Department of Animal Nutrition, College of Veterinary Science, Garividi, SVVU, Andhra Pradesh, India

## K Prabhakar Rao

Assistant Professor, Department of Veterinary Gynaecology and Obstetrics, College of Veterinary Science, SVVU, Andhra Pradesh, India

## Foetal mummification accompanied with Anasarca foetus in a non-descript doe: A case report

K Sudha Rani and K Prabhakar Rao

### Abstract

In the present study we have reported successful management of foetal dystocia occurred due to fetal anasarca accompanied with a mummified foetus, the case was relieved by simple traction and the Doe had an uneventful recovery.

**Keywords:** Hernia, buffalo bull, umbilical, herniorrhaphy

### Introduction

Foetal mummification is a gestational accident that occurs during 2<sup>nd</sup> or 3<sup>rd</sup> trimester of pregnancy when the dead foetus is not expelled by abortion and foetal fluids are absorbed by the maternal system giving the foetus an appearance of parchment (Roberts, 1986) <sup>[10]</sup>. The first report of the foetal mummification was done by Loje (1930) <sup>[7]</sup> in Danish cattle and proposed single recessive autosomal gene as a factor for mummification. Mummification in multiparous species like goats may occur due to placental insufficiency that occur due to overcrowding (Arthur, 2001) <sup>[2]</sup>. The time taken for the process of mummification depends on the age of the foetus at the time of the death. Foetal mummification in doe was associated with *Coxiella* infection, toxoplasmosis, *Chlamydomphila*, and border disease (Edmondson *et al.*, 2012) <sup>[5]</sup>. Energy and protein deficiencies, particularly in third trimester of gestation also cause fetal mummification (Braun *et al.*, 2007) <sup>[2]</sup>. Fetal anasarca is a generalized dropsical condition of the foetus beneath the skin and is occasionally observed in kids and foals (Craig, 2000) <sup>[4]</sup>. Increased accumulation of fluid in the subcutaneous tissue of the foetus results in increased size of the foetus causing difficulty in expulsion per vagina (Jackson, 2004) <sup>[6]</sup>.

### Case history and Clinical observations

A non-descript doe aged 3 years and in second parity was presented to College of Veterinary Sciences, Garividi with the history of labour pains since previous night, straining, inappetence and scanty vaginal discharge since last 2 days. On enquiry of the owner, it was reported that the previous kidding was normal with twins. Clinical observations revealed the animal was dull and depressed, heart rate was 100 beats per minutes and respiration was 24 breathes per minute. The rectal temperature was recorded as 103<sup>0</sup>F. On abdominal palpation foetal mass was palpated and per vaginal examination revealed foetal head and limbs with dilated cervix.

### Therapeutic management

The perineal region of the doe was thoroughly scrubbed and cleaned with 1% KMnO<sub>4</sub> solution followed by povidine Iodine solution. The doe was administered with 5% dextrose intravenously. Before prevaginal examination hand was lubricated with liquid paraffin. A well lubricated hand inserted into vagina and a dead foetus without any hair growth was removed by slight traction. On re-examination of the vagina found another foetus was delivered by gentle traction. Gross examination of the foetus revealed one foetus with anasarca and another with fetal mummification (fig 1). Crown rump length of the one foetus was 10.4 cm and the second one 5.9 cm suggestive of approximately 60 days of gestation. The main reason for non-expulsion of foetus might be due to foetal anasarca and uterine inertia. On careful post-mortum dissection of the foetus examination revealed hepatomegaly and liquefaction were noticed in the liver. All the debris was removed and intrauterine cleaning of uterus was done with cleanex bolus. The animal was maintained with 5% DNS 500 ml I/V, systemic antibiotic @ inj. Enrofloxacin 5mg/kg body weight I/M, anti-inflammatory @ Inj. Meloxicam 0.3 mg/kg body weight I/M routinely and supportive calcium supplement orally for 5 days.

### Corresponding Author

#### K Sudha Rani

Assistant Professor, Department of Animal Nutrition, College of Veterinary Science, Garividi, SVVU, Andhra Pradesh, India

The animal recovered gradually consumed normal diet and resumed normal health. Foetal anasarca might happen due to circulatory disturbance between foetal and maternal circulation. Moreover, lymphatic obstruction may act as a cause of disturbance in the drainage of fluid leading to foetal anasarca (Sloss and Dufty, 1986; Roberts, 2004) <sup>[12, 11]</sup>. that foetal anasarca may develop in a single foetus or one of the twins and associated with achondroplasia or bull dog calves and was due to simple autosomal recessive gene (Long, 1996) <sup>[8]</sup> Arthur (1996) <sup>[1]</sup> reported that foetal mummification is characterized by death of foetus being retained in uterus owing to the failure of normal parturition or abortion mechanisms of the foetus. The foetal death in domestic animals occurring during 2<sup>nd</sup> or last third of gestation might lead to the abortion of the foetus or decomposition or maceration which is followed by autolytic changes of the foetus, absorption of foetal fluids, involution of the maternal placenta and mummification of foetus (Roberts, 1986) <sup>[10]</sup>. Fetal mummification is reported to be rare in goats but appears to be more associated with duplicate or triplicate foetus (Nag *et al.*, 2017) <sup>[9]</sup>.

In the present study the mummification and anasarca might have occurred due to circulatory disturbance rather than the infectious cause as one foetus was associated with mummification and another with foetal anasarca.



**Fig 1:** Gross examination of the foetus revealed one foetus with anasarca and another with fetal mummification

## References

1. Arthur GH, Noakes DE, Pearson H, Parkinson TJ. Infertility in the sow and gilt. In: Noakes AD, editor. *Veterinary Reproduction and Obstetrics*. 7th ed. London: WB Saunders 1996, 468-496.
2. Arthur GH, Noakes DE, Parkinson TJ, England GCW. *Veterinary Reproduction and Obstetrics*, 8th ed. W.B. Saunders Company Ltd., London, England 2001.
3. Braun WF Jr. Noninfectious prenatal pregnancy loss in the doe. In: Youngquist RS, Threlfall WR, editors. *Current Therapy in Large Animal Theriogenology*. 2nd ed. Philadelphia: WB Saunders 2007, 555-561.
4. Craig JF. *Flemings's Veterinary Obstetrics*, Greenworld Publishers 2000, 271-273.
5. Edmondson MA, Roberts JF, Baird AN, Bychawski S, Pugh DG. *Theriogenology of sheep and goats*. In: Pugh DG, Baird AN, editors. *Sheep and Goat Medicine*. 2nd ed. Maryland Heights (MO): Elsevier Saunders 2012, 150-230.

6. Jackson PGG. *Handbook of Veterinary Obstetrics*, Saunders Company Limited 2004, 15.
7. Loje K. Letale gener hos husdyrene, specielt hos kvæg af Rød Dansk Malke race (Lethal genes in domestic animals, particularly in cattle of Danish Red cattle). *Tidskr Landokonomi* 1930;10:517-49.
8. Long S. Abnormal development of the concepts and its consequences in: *Veterinary Reproduction and Obstetrics*, 7th Edition, W.B. Saunders Co Ltd 1996, 110-133.
9. Nag Pradeep, Kalyaan B, Gopikrishnan U, Balasubramaniam T, Thulasiraman, Sarath. Short Communication Twin Fetal Hydroperitoneum Associated With Early Mummification In A Non Descriptive Doe 2017, 201-202.
10. Roberts SJ. Disease and accidents of the gestation period. In: *Veterinary Obstetric and Genital Diseases*. 3rd ed. Newton Abbot, UK: David and Charles 1986, 123-144.
11. Roberts SJ. Tetralogy. In: *Veterinary obstetrics and genital diseases*, 2nd Edition, CBS publishers and distributors, New Delhi 2004, 50-52.
12. Sloss V, Dufty JH. *Handbook of bovine Obstetrics*, Williams and Lilkins, London 1986, 121-122.