

Dystocia Due to Multiple Fetal Mummification of Quadruplet Kids in a Bidri Doe – A Case Report

Malasri Gond^{1*}, Rajeshwar Gangaram Bijurkar², Venkangouda Doddagoudar³, Mohd Mujaheed Pasha⁴, Yashoda Rathod⁵

Ind J Vet Sci and Biotech (2023): 10.48165/ijvsbt.19.1.29

Fetal mummification occurs due to intrauterine aseptic death of the fetus with absorption of fetal fluids, which results in shriveled parchment like fetal membranes in papyraceous mummification or viscous chocolate colour of fetal membranes in haematic fetal mummification (Noakes *et al.*, 2009). It is a rare obstetrical disorder in small ruminants compared to other domestic animals which is seen in the middle to last third of gestation (Roberts, 1971). In swine, dog and cat carrying large litter size there is uterine overcrowding of young ones with placental insufficiency (Long, 2009) whereas, in doe it is associated with Toxoplasmosis, Chlamydophila, Border disease and *Coxiella burnetii* infection (Edmondson *et al.*, 2012). The present case report highlights on dystocia due to multiple fetal mummification and its management in a Bidri doe.

CASE HISTORY AND OBSERVATIONS

A pluriparous Bidri doe was presented to the Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Bidar with the history of unknown gestation period, intermittent straining, chocolate brown vaginal discharge since 12 h without any progress along with inappetence and isolation from the flock. On clinical examination, doe was dull with normal rectal temperature and respiration rate. Per-vaginal examination revealed cervical dilation to the extent of about one finger and detailed trans-abdominal ultrasonographic examination revealed multiple fetal skeletons devoid of any fetal heartbeat and meagre fetal fluid in-utero. Hence, it was decided to terminate the pregnancy by administering Inj. Cloprostenol sodium, 250 µg, (Pragma[®]) IM and was advised to observe for fetal expulsion. On the very next day, the doe was brought back with complaint of non-progressive straining, upon gynaeco-clinical examination, cervix was completely dilated and a dry rubber like compact structure in pelvic brim was palpated. The case was tentatively diagnosed as dystocia due to multiple fetal mummifications.

TREATMENT AND DISCUSSION

Epidural anaesthesia was achieved with 1% Lignocaine and birth canal was lubricated with *ad-lib* carboxy methyl cellulose gel. Then, well lubricated hand was passed per

^{1,2,4}Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Bidar-585401, Karnataka Veterinary Animal Fisheries Sciences University (KVAFSU), Nandinagar, Bidar, Karnataka, India

³Department of Veterinary Clinical Complex, Veterinary College, Bidar-585401, KVAFSU, Nandinagar, Bidar, Karnataka, India

⁵Department of Veterinary Medicine, Veterinary College, Bidar-585401, KVAFSU, Nandinagar, Bidar, Karnataka, India

Corresponding Author: Malasri Gond, Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Bidar-585401, Karnataka Veterinary Animal Fisheries Sciences University (KVAFSU), Nandinagar, Bidar, Karnataka, India, E-mail: malasrigond5@gmail.com

How to cite this article: Gond, M., Bijurkar, R. G., Doddagoudar, V., Pasha, M. M., & Rathod, Y. (2023). Dystocia Due to Multiple Fetal Mummification of Quadruplet Kids in a Bidri Doe – A Case Report. *Ind J Vet Sci and Biotech*. 19(1), 124-125.

Source of support: Nil

Conflict of interest: None

Submitted: 08/09/2022 **Accepted:** 19/12/2022 **Published:** 10/01/2023

vaginally and a mummified fetus (Fig. 1) along with a fully grown dead fetus was removed manually using obstetrical manipulations. Further, the doe was subjected for abdominal radiography to check for presence of any more fetuses (Fig. 2), which revealed presence of two more fetal skeletons in the deep abdomen. Subsequently, with deeper palpation and manipulation, two more rubbery chocolate brown colour, dry haematic mummified fetuses were removed manually (Fig 3).

Examination of dead fetus revealed normal development, but its intra-uterine death was suspected due to prolonged period of kidding due to the presence of mummified fetuses which were placed anterior to this fetus. The other three mummified fetuses were hard, compact, rubbery chocolate brown in colour typical of haematic type of mummification.

The doe was administered the necessary post-kidding treatment, which included Inj. Milk fever formula[®] - 60 mL slow IV to compensate for the loss of calcium ions due to prolonged straining, Inj. Ceftriaxone @ 10 mg/kg b.wt. (Intacef[®]) IV, Inj Meloxicam @ 0.5 mg/kg b.wt. (Melonex[®]) IM. for three consecutive days as a supportive therapy along with these, uterine cleanser, Liq Utrevive[®] 40 mL per oral twice a day for five days was prescribed to evacuate and cleanse the

uterus from any remnant. The doe was discharged post 2 h of delivery and owner was advised to follow up the prescribed treatment. Follow up of case assured uneventful recovery of the doe.

Fetal mummification as a cause of dystocia in doe has been reported in the literatures reviewed, dystocia due to single mummified fetus (Bisla *et al.*, 2018), mummified fetus co-twin with normal dead fetus (Bawaskar *et al.*, 2018) and mummified fetus with two normal fetuses (Bisla *et al.*, 2019) have been reported. The above studies have reported many incidences of fetal mummification as co-twins and co-triplets with normal or dead fetus but the reports on fetal mummification as co-quadrants are scarce. A mummified fetus can be delivered manually if cervix is open but in case of closed cervix luteolytic agent and cervical dilators can be used for better result. Awasthi and Tiwari (2002) reported the use of PGF₂α for the treatment of fetal mummification in cow a similar approach was followed along with obstetrical manipulation in the present case report to deliver the fetuses.



Fig. 1. Mummified fetus relieved by gentle traction after complete cervical dilation.

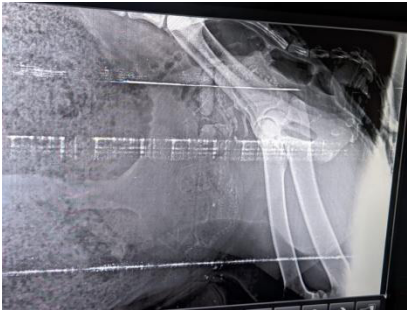


Fig. 2. X ray revealed retained fetal skeleton.



Fig. 3. Shows two more mummified fetuses

ACKNOWLEDGMENTS

The author(s) humbly thank the authorities of KVAFSU, Bidar for providing facilities in carrying out present work.

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