

SURGICAL MANAGEMENT OF A RARE CASE OF QUADRUPLETS IN A DOE COMPRISING OF DUAL MUMMIES, A STILLBORN AND A LIVE KID

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ABSTRACT

A pluriparous non-descript doe was presented with the history of dystocia. Clinical investigation revealed the presence of closed cervix and lodged multiple foetuses in the tract. Laparo-hysterotomy was performed and four foetuses were relieved, of which one was alive, one was still born and the other two were mummified. Thus the present report describes the incidence of quadruplets in a doe comprising of dual mummies along with a stillborn and a live kid.

Key words: Doe, mummification, quadruplets.

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INTRODUCTION

Foetal mummification is a gestational disorder rarely recorded in sheep and goats, which is characterised by foetal death in the mid or last third of the gestation followed by failure of abortion, persistence of corpus luteum, absorption of foetal fluids and involution of uterus to an extent that it contracts tightly over the foetus and resembles a contracted hard mass (Roberts, 1971). Hematic type of mummification is usually reported in the ruminants in which a chocolate brown coloured sticky substance covers the

whole mummified foetus while in papyraceous type, the foetal membranes are shrivelled as a parchment paper (Long, 2009). The present communication places on record of a novel case of quadruplets in a doe comprising of dual mummies along with a stillborn and a live kid.

CASE HISTORY AND CLINICAL OBSERVATIONS

A pluriparous non-descript doe was presented to the Veterinary Clinical Complex at full term gestation. The anamnesis described that the doe was straining with a protruded mass at the perineal region (Fig.1), reduced appetite and was laterally recumbent for the

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past 12 hrs. The doe was exhibiting signs of abdominal straining, teat engorgement and vaginal discharge for 12 hrs without progress in parturition. On clinical examination, all the vital parameters were within the normal range and gynaecological examination revealed that the cervix was closed and located ventral to the protruded mass.

Radiographic examination of the lateral abdomen revealed presence of multiple foetuses within the uterus with one foetus engaged in the protruded mass (Fig.2). Ultrasonographic examination revealed presence of heart beat in a single foetus suggestive of its viability. It was decided to perform laparo-hysterotomy to deliver the foetuses.

TREATMENT AND DISCUSSION

Laparo-hysterotomy was performed by ventro-lateral approach under local anaesthesia using 2% lignocaine hydrochloride. After removal of four foetuses (Fig.3) and placental membranes, the surgical site on the uterus, peritoneum and skin were closed by adopting standard surgical procedures. Among the delivered kids, one was alive, one was a stillborn kid and the other two were mummified foetuses of different sizes. On further clinical examination, a depression was observed over the cranium of stillborn foetus (Fig.4), skull deformity was observed in one mummified foetus (Fig. 5) and hematic foetal membranes in another mummified foetus (Fig. 6). Though one kid was alive at the time of its birth, it was observed to be very

weak and eventually it succumbed to death within few hours. Post operatively, the dam was treated with parenteral fluids, antibiotics, antihistaminics and anti-inflammatory drugs. The goat recovered uneventfully after 5 days of post-operative treatment.

Foetal mummification is a gestational disorder commonly observed in all the domestic animals but rarely recorded in sheep and goats. It occurs usually during mid or last trimester of gestation period (Roberts, 1971). The incidence of foetal mummification in sheep and goat was reported by earlier authors as in single-tons (Bisla *et al.*, 2018), single mummified foetus along with a live or dead co-twin (Ogbu *et al.*, 2011; Bawaskar *et al.*, 2018; Bhardwaj and Kumar, 2014; Hemalatha *et al.*, 2018) or co-triplets (Yadav *et al.*, 2019). Perusal of literature revealed that incidence of foetal mummification was more common in the twin or triplet pregnancies as compared to singletons and many reports cited the occurrence of foetal mummification as co-twin or co-triplet with the normal or dead but completely developed foetus/foetuses. The present report documented a rare occurrence of foetal mummification in quadruplets in a doe. The concurrent occurrence of mummified foetuses of varied sizes might be due to death of foetuses during varied stages of gestation.

CONCLUSION

The present case report places a record of rare occurrence of quadruplets comprising of dual mummified foetuses of different sizes along with a live and a stillborn kid in a doe.



Fig. 1. Protruded mass at perineal region



Fig. 2. Radiograph showing multiple foetal skeletons and head of a foetus at perineum (arrow)



Fig. 3. Four foetuses removed from the doe after surgery (live kid marked in the circle)



Fig. 4. Depression over the cranium of the stillborn foetus



Fig. 5. Skull deformity of the mummified foetus



Fig. 6. Hematic foetal membrane of a mummified foetus

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