

Case Study

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Mummified Fetus and Two Live Fetuses in Labrador Bitch: A Special Case

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ABSTRACT

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Fetal mummification in canine is not so common. It happens when fetus died after one third of pregnancy and fetal fluid gets resorbed leading to shriveling placenta around the fetus. In canines papyreous type of mummification takes place. In papyreous mummification the fetal fluid gets resorbed and placenta becomes adhered to the fetus. Present case deals with the successful management of canine fetal mummification along with delivery of two live fetuses.

Introduction

Mummification is characterized by death of fetus and absorption of fetal fluid leading to contraction of uterus and fetal membranes become adhered to the fetus (Roberts, 2004). In the bitch stage at which the fetal death occur, decides whether resorption of fetus, mummification and abortion can occur. Fetal mummification usually occurs when the fetus died after first third of pregnancy and having a fully mature skin that is resistant to autolysis (Linde-Forsberg, 2010; Bindari and Shrestha, 2012). In multiparous animal if mummification occurs, it does not interfere with the survival of other viable fetuses; instead the mummified fetus may be delivered with the normal fetus at full term (Arthur *et al.*, 2001).

Case history and clinical examination

A three year old Labrador bitch was presented in GADVASU clinic with the history of mating 70 days back. Anamneses revealed that the bitch was anorectic but no signs of impending whelping were visible. Rectal temperature was 104°C and other parameter show slight decrease from normal range. Blood picture revealed marked leukocytosis with neutrophilia suggesting an infection.

Ultrasonography revealed three fetal skeletons with the two normally developed and one underdeveloped. After stabilizing the bitch giving Ringer Lactate @ 150 ml intravenously, the bitch was put on cesarean section.

Treatment

After giving pre anesthetic Atropine @ 0.04 mg/kg S/C bitch was sedated using Xylazine @ 2 mg/kg and Ketamine @ 10 mg/kg and mid ventral laparotomy was done. After incising the muscle layer, uterus was visible and it shows mummified fetus was stuck at the uterine bifurcation leading to inability of other two fetuses to come out (Fig. 1). Uterine incision was made on the dorsal aspect of the uterine horn. Three fetuses were delivered with two completely normal and one mummified (Fig. 2). Uterus was sutured using double layer of Lambert and Cushing suture using Chromic catgut No. 2-0 and muscle layer was sutured by interrupted suture

pattern using Vicryl suture no. 1-0. Skin sutures were applied by silk. The bitch was given antibiotic injection Cefotaxim 325 mg I/M, injection Melonex @ 3 ml I/M, injection Polybion @ 2 ml I/M and DNS @ 150 ml I/V. Whole of the treatment was continued for five days except the fluid therapy. Skin sutured was removed after 14 days.

Results and Discussion

Death of fetus can occur at any stage of pregnancy and can result in resorption, abortion or retention of fetus which can become mummified or if bacterial contamination occur leads to maceration or pyometra (Mudasir *et al.*, 2012).

Fig.1 Mummified Fetus showing embryonic remnant of body parts



Fig.2 Mummified fetus with live fetus



The nature of outcome depends on what has caused embryonic/fetal death, the stage of pregnancy and fetal/maternal immune-

competence (Romagnoli, 2002). In bitch the main cause of fetal mummification is Canine Herpes Virus Infection (Arthur *et al.*, 1996).

Here one mummified fetus is delivered with two normal fetuses which clearly show that the presence of mummified fetus does not affect the viability of other live fetuses. The lack of expulsion of fetus may be due to primary uterine inertia (Vorwald *et al.*, 2012). Scientists also believed that sometimes fetus fail to produce sufficient ACTH and cortisol which were the first signal given to mother for initiating the process of parturition (Johnston *et al.*, 2001a; Linde- Forsberg, 2010). Reports of Walett and Lindane (1994) suggested uterine inertia as main cause of dystocia and retention of mummified fetus in bitches.

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