

FOETAL MUMMIFICATION AND IT'S MEDICAL MANAGEMENT IN A DOBERMAN PINCHER

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Introduction

Death of the fetus after ossification of fetal bones generally leads to fetal mummification, if there is no bacterial infection concurrent with or causing death of the fetus (Robinson *et al.*, 2003). The uterus contracts on the fetus, placental fluids gets absorbed and fetal membranes become shriveled, dried up (Roberts *et al.*, 2004) and resemble parchment (Arthur *et al.*, 2001). In polytocous species, even if mummification occurs in some fetus, it does not interfere with the continuation of pregnancy of the other fetuses (Arthur *et al.*, 2001). Fetal mummification does not occur during first half of the pregnancy because embryonic or fetal death prior to the development of the fetal bones usually will be followed by resorption (Johnston *et al.*, 2001).

Present paper describes the expulsion of mummified fetus by medical treatment in a two year old Doberman Pincher female dog at 72 days of gestation.

Case history and Observations

A two year old Doberman Pincher female dog was presented to the department of Veterinary Gynaecology and Obstetrics, Veterinary College, Hebbal, Bangalore with history of prolonged gestation of 72 days. The pet was active with normal appetite. No impending signs of parturition were evident. Physical examination revealed mammary gland enlargement with expression of milk. Rectal temperature was 102.40 F and no edema of the vulva was noticed. The vaginal canal was slightly relaxed.

Abdominal palpation revealed uterine distention with a hard mass. Trans-abdominal ultrasonography with a 5 MHz transducer

revealed obscure appearance of the hard mass with hyperechogenicity. Cranial bones (Fig.1) and vertebrae were evident. There was absence of fetal fluids and viability of fetus. Based on the abdominal palpation and ultrasonography, the condition was diagnosed as fetal mummification. Gestational age as per the head diameter of the mummified fetus was estimated to be as 46 days. Haematological and biochemical profiles were normal.

Treatment and discussion

Medical management with an oral antiprogesterin, Mifepristone @ 5mg per Kg body weight twice daily for two days (Tab.MT Pill-200mg) and a synthetic prostaglandin, cloprostenol sodium @ 5µg per Kg body weight subcutaneously once daily for two days (Inj. Estrumate -0.3 ml) was administered. The bitch was maintained on Tab. Cephalexin @ 22mg per kg body weight twice daily orally for five days.

Expulsion of fetus was started by 36 hours after initiation of Mifepristone therapy as evident by the presence of dark brown vaginal discharge. The expulsion of the mummified fetus was completed in twenty minutes from the appearance of dark brown discharge. The bitch was again subjected for abdominal palpation and ultrasonography. Ultrasonographic examination revealed involuting uterus and no evidence of fetus was seen. On vaginal examination, fetal parts were not palpable.

Antiprogesterins are synthetic steroids that bind to the progesterone receptor, but fail to initiate activities normally initiated by progesterone, and by occupying the receptors they prevent the actions of endogenous



progesterone. The use of antiprogestational agents mifepristone is noted to be very effective (100%) in pregnancy termination and induction of parturition in dogs (Fieni *et al.*, 1996). Cloprostenol, a synthetic prostaglandin have fewer side effects and a shorter treatment period and are preferred to the natural prostaglandins (Valerie *et al.*, 2009). Cloprostenol has been routinely and effectively used for pregnancy termination in dogs, being used at a dose of 2.5 ug / kg, administered three times, at 48 hour intervals (Fieni *et al.*, 1989).

Synthetic antiprogestins i.e Mifipristone bring about mild uterine muscle contraction. In order to enhance contraction Cloprostenol sodium is used. Cloprostenol sodium causes luteal regression and also brings about contraction of the uterine muscle leading to faster expulsion of the uterine contents. Therefore, the use of antiprogestins and prostaglandin F2 alpha can be a good combination in initiation and expulsion of the mummified fetus. In the present case the combination of the drugs has helped for successful expulsion of the mummified fetus without complications.

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