

A RARE CASE OF COMPLETE VAGINAL PROLAPSE IN AN ADVANCED PREGNANT BITCH

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ABSTRACT

A six-year-old crossbred bitch had complete vaginal prolapse as a complication to increased intra-abdominal pressure from ascites of hepatic origin and full term pregnancy. The recurrence of vaginal prolapse and ascites was not observed following surgery and therapeutic management.

Keywords: Ascites, Bitch, Pregnancy, Vaginal prolapse

INTRODUCTION

Vaginal hyperplasia and vaginal prolapse in bitch occurs due to edematous swelling of vaginal mucosa secondary to estrogen stimulus during pro-estrus and early estrus (Johnston *et al.*, 2001). In bitch, true vaginal prolapse is a rare condition that occurs near whelping as the serum progesterone declines and estrogen increases (Johnston *et al.*, 2001; Konig *et al.*, 2004). The cervix is exteriorized in cases of complete vaginal prolapse, but not in partial prolapse (Wykes, 1986). The present case reports a rare case of vaginal prolapse unrelated to estrogen secretion and may be caused by increased intra abdominal pressure or altered perineal and vulvar conformation following injury.

CASE HISTORY AND OBSERVATIONS

A six year old female, cross bred dog in fair body condition, weighing 18 kg was presented to Department of Veterinary Gynaecology and Obstetrics with the history of mass protruding from the vulva since one week. The bitch was mated once with a similar sized male dog about 65 days before. Vaginal prolapse was not observed in previous cycles and had no complications in previous deliveries. Upon admission, rectal temperature was 100.8°F, dyspnoea and tachycardia was evident. The

prolapsed vagina with external os of cervix exposed was slightly edematous. No lacerations or necrosis were observed. Digital examination revealed two-finger dilatation of the cervix, the fetal membrane protruding through it and a small amount of greenish discharge was noticed (Figure 1A). Abdomen was tense with fluid thrill on palpation (Figure 1B). Trans-abdominal ultrasonography revealed anechoic fluid filled abdomen suggestive of ascites and non-viable and viable fetuses in the uterine horns as evaluated by fetal heart rate. Gestational age as assessed by head diameter using ultrasound was 64 days. No abdominal contractions were observed and on oxytocin therapy, the animal showed no response. The haematological studies revealed haemoglobin 8.2 g%, TLC 7800/μl, PCV 24% and platelet 1,60,000/μl. The biochemical analysis of serum revealed SGPT 247 IU, alkaline phosphatase 318 IU, total protein 4.2 g/dl, serum creatinine 0.93 mg/dl, and serum albumin 1.2 g/dl. Taking into account the possibility of complications expected due to ascites, vaginal prolapse and also as the dog had entered into first stage of labor, it was decided to perform an emergency cesarean section.

TREATMENT AND DISCUSSION

The bitch was premedicated with glycopyrrolate (0.02 mg/kg, iv) followed by induction and maintenance of anaesthesia with propofol. Ventral midline laparotomy was

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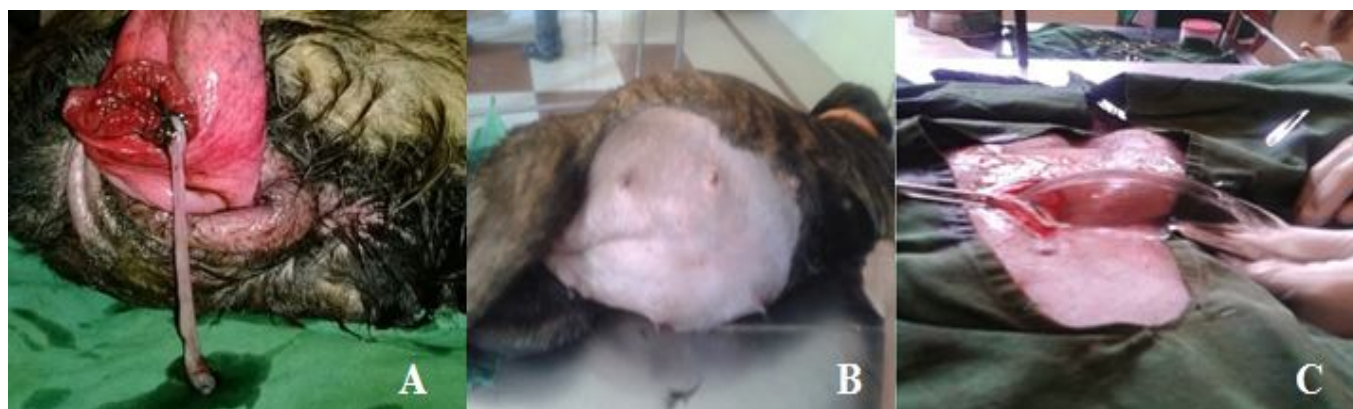


Figure 1: Complete vaginal prolapse due to ascites in a full term pregnant dog

carried out, ascites fluid was drained out and one dead and three live puppies were extracted out of the single uterine incision (Fig.1C). Following this, 'En-bloc' hysterectomy was performed and supportive treatments with antibiotics, fluids and analgesics was provided. No recurrence of vaginal prolapse or ascites was observed later and the neonates were in good health upto one month of follow up.

Excess prepartum relaxation of pelvic ligaments combined with increased intra abdominal pressure may be responsible for the vaginal prolapse occurring before parturition. In the present case, increased abdominal pressure from ascites of hepatic origin and full term pregnancy would have contributed to vaginal prolapse as reported in another study. It was suggested that usually there is no need for any intervention and parturition can proceed normally, provided there are no other complications (Jones and Joshua, 1982). On the contrary, vaginal prolapse may prohibit normal parturition by narrowing birth canal (Alan *et al.*, 2007). In the present case, an emergency surgical intervention was performed to improve the fetomaternal outcome as the probability for dystocia from an impaired abdominal contraction due to overstretched abdomen from ascites and a narrowing of the birth canal owing to vaginal prolapse was expected. The fetomaternal wellbeing obtained in this case following

an emergency surgery substantiates the intervention made. Ovariectomy or ovariohysterectomy is recommended to prevent recurrence of the condition (Konig *et al.*, 2004).

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