

Surgical management of dystocia due to single pup syndrome in a bitch

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Dogs are polytocous species, but in some cases single foetus pregnancies are observed in bitches, called single pup syndrome, which is considered as a high risk pregnancy (Shekher *et al.*, 2020). In single pup syndrome, primary uterine inertia, where there is failure to initiate uterine contraction is seen. There may be inadequate cortisol release from the foetus to initiate PGF₂ α release by the endometrium, which initiates corpus luteum regression and whelping (Jayakumar *et al.*, 2017). In single pup the main cause of dystocia may be overstretching of the myometrium by oversized foetus and excessive foetal fluids, which may prove fatal to both mother and pup. In the present report surgical management of dystocia due to singleton pup in a primiparous German shepherd bitch is described.

A two and a half-year-old female primiparous German shepherd dog was presented to Government Veterinary Dispensary, Chelembra, Malappuram (Kerala) with the complaint of straining, anorexia and vaginal discharge since previous night. The animal was mated 66 days back during its second heat cycle.

The dog was weighing 25 kg and was alert and active. On clinical examination the vitals were within the normal range with respiration 25 breaths/min, pulse 80 beats/min, temperature 101.6° F, and mucus membrane was pink in colour. Abdominal palpation revealed an enlarged uterus. On per-vaginal examination improper dilatation of cervix was identified with greenish discharge. Mammary glands were engorged and milk was expressed from nipples.

Medical management was opted initially with slow intravenous injection of inj. dextrose (25%) 200 mL and inj. calcium sandoz (10%) 10 mL and inj. oxytocin (Pitocin 10 IU) at the dose rate of 1 IU/kg. After 2 hr, per-vaginal examination revealed incomplete dilatation of cervix. The medicinal treatment was repeated after two hours and checked again for dilatation. The cervix was then dilated, but the foetus could not be retrieved manually per vaginam.

An emergency caesarian section was opted to save the life of the animal. The animal was premedicated with intramuscular injections of atropine sulphate (0.045 mg/kg body wt) followed by xylazine HCl (1 mg/kg body wt). Anaesthesia was induced with ketamine HCl (5 mg/kg body wt, i.m.).

Ventral abdomen was shaved and prepared for aseptic surgery. A linear mid-ventral skin incision was made on the caudal abdomen. After incising linea alba and peritoneum, the distended right uterine horn was exteriorized and draped. On incising the uterine horn an oversized single dead foetus spanning the entire length of the uterine horn and body was removed. The uterus was irrigated with normal saline to remove infected uterine exudates. The uterine incision was closed by Cushings followed by Lamberts sutures with Catgut No. 1-0. Linea alba and peritoneum were sutured by simple continuous sutures with Catgut No. 1-0. The skin incision was closed with horizontal Mattress sutures and intervened with simple continuous sutures with Nylon No. 1. Cotton bandage was applied at the incision site followed by multi-tailed abdominal bandage.

Postoperatively the animal was given antibiotic Ceftriaxone sodium (20 mg/kg body wt) intravenously and meloxicam (0.5 mg/kg body wt) intramuscularly. The animal made an uneventful recovery. Timely surgical intervention helped to save the animal.

References:

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