

Uterine Rupture and Ectopic Pregnancy in a Bitch: A Special Case

Sumit Singhal¹, Ankit Kumar Ahuja^{2*}, Shivkumar³, Shahbaz Singh Dhindsa⁴ and
Ashwani Kumar Singh⁵

¹Assistant Gynecologist, ⁴Assistant Animal Scientist, ⁵Assistant Professor, ^{2,3}M.V.Sc. Scholar,
^{1,2,3,5}Department of Veterinary Gynecology and Obstetrics, ⁴Department of Animal Genetics and Breeding,
College of Veterinary Science

Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana - 141004

*Corresponding Author E-mail: ankit.ahuja1947@gmail.com

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ABSTRACT

Uterine rupture is a rare condition in bitch. Major reason of uterine rupture is external trauma or intense contraction of uterus. Present case deals with successful surgical management of a bitch having asymptomatic uterine rupture and ectopic pregnancy. Mid ventral laparotomy was performed to identify the ruptured necrosed horns and the ectopic fetus. Ruptured uterine horns were sutured with double layer of inversion suture pattern. Bitch recovered uneventfully.

Key words: Uterine rupture, Ectopic pregnancy, Inversion suture.

INTRODUCTION

Uterine rupture in a pregnant bitch is rarely diagnosed and is uncommon condition. Uterine rupture can occur due to external trauma, infection, torsion, dead fetus, inappropriate obstetrical technique, excessive use of oxytocin and malpresentation of fetus^{1,2}. Ectopic pregnancy or extrauterine pregnancy is referred to as abnormal pregnancy condition in which the fetus develops outside the uterus and goes inside the abdominal cavity and get attached to abdominal organs. Ectopic pregnancy is more common in humans with an incidence rate of 20.7 cases per 1000 pregnancies³. In animals the detailed epidemiological studies have not been done and these types of pathological conditions are rare⁴. This report describes a successful

surgical management of uterine rupture and ectopic pregnancy in a bitch.

Case History and Observations

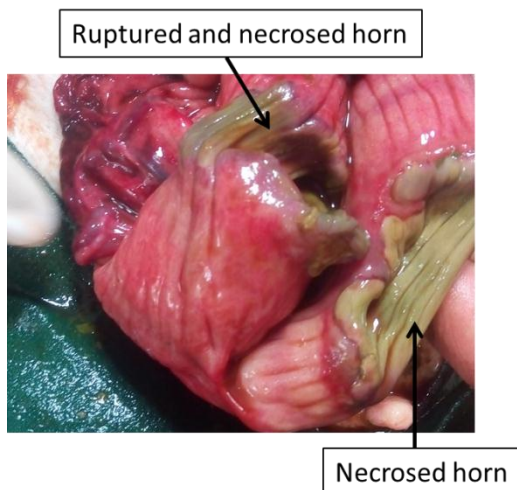
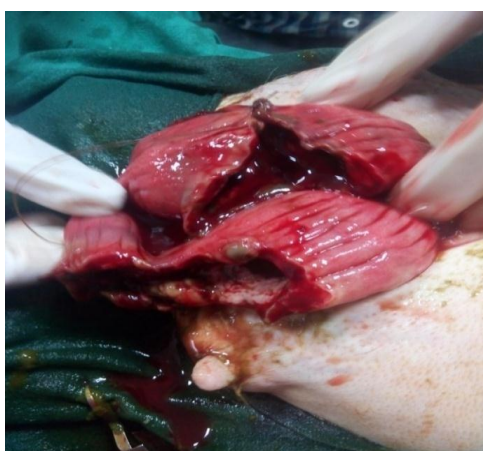
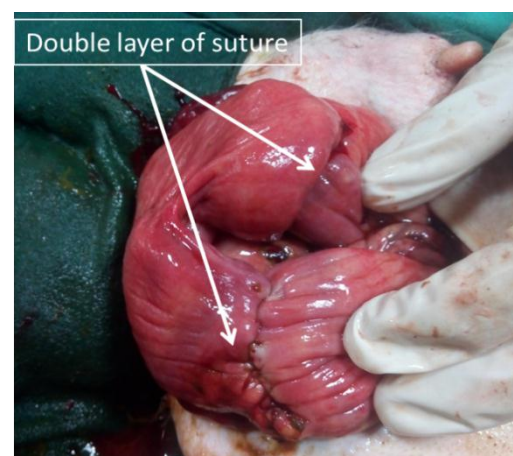
A two year old, primiparous, 22 Kg bitch was presented to Teaching Veterinary Clinical complex Ludhiana, Punjab with the history of whelping induction with oxytocin (30-35 IU I/V) and case was handled by local practitioner. Two dead pups were delivered by obstetrical intervention. On clinical examination there were no signs of either straining or the presence of fetus in the vaginal passage. Lateral abdominal radiograph revealed presence of two fetal skeletons deep in the pelvic cavity. The bitch was induced with calcium and oxytocin but no progress occur so caesarean section was recommended.

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Treatment

After failure of all attempts to deliver pups intra vaginally, caesarean section through ventral midline incision was performed. Prior to caesarean section, the dog was stabilized using fluids and antibiotics. Atropine Sulphate @ dose rate of 0.045 mg/kg S/C was given as pre-anesthetic. General anesthesia was induced and maintained intravenously by Ketamine Hydrochloride (5 mg/kg) and Xylazine Hydrochloride (1mg/Kg). After preparation of incision site, ventral midline laparotomy was done. Abdomen shows mild green colored fluid in the abdominal cavity. Exploration of uterine horns reveals necrosis (Fig 1) and

rupture at the greater curvature with placental attachments of fetus. One dead fetus was in left horn and another dead fetus was found in the abdominal cavity (Fig 2). Uterus was flushed with metronidazole. Necrosed part was freshened (Fig 3) and closed by double layer inversion suture i.e Lembert and Connel suture, using Catgut No. 2-0 followed by muscles and skin by interrupted suture pattern using Catgut No. 0 (Fig 4). In post-operative treatment Amoxicillin-sulbactam (12.5 mg/kg, bid I/M) for 5 days, Metronidazole (20 mg/kg, bid I/V) and Meloxicam (0.3 mg/kg I/M) injection were given for 3 days. The dog recovered uneventfully.

Figures**Fig. 1: Necrosed uterine horns****Fig. 2: Ectopic fetus****Fig. 3: Freshened of necrosed part****Fig. 4: Inversion suture pattern**

DISCUSSION

Uterine rupture is rare in bitch and is commonly identified as complication of over dose of exogenous oxytocin⁵. Other causes are uterine torsion, presence of infection, fetal malposition and careless obstetrics procedures¹. Uterine rupture occurs during whelping if the wall of uterus is compromised⁵. Presence of fetus in the abdominal cavity can occur only in case of extensive uterine rupture, which results in severe peritonitis, adhesions, intestinal or abdominal organ compression and hemorrhage as observed in the present case⁶. In the present case also the necrosed part at the greater curvature of horns paves its way for the fetus to enter into the abdominal cavity. For successful treatment of uterine rupture and early diagnosis is needed otherwise they leads to development of posterior peritonitis and maceration of fetus^{7,8}. The most preferable and suitable approach for these case is ovariohysterectomy combined with intravenous fluids and antibiotic therapy, however in this case we ligated the uterus using double layer of inversion suture pattern^{9,10} (Lembert and Connel suture).

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