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## Dystocia due to duplex cervix in an American pit bull

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### Abstract

An American pit bull female dog aged one and half a year was presented with history being artificially bred 54 days back to the Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Hebbal, Bengaluru. Colposcopic examination by endoscope revealed mucoid brownish discharge from vagina for last three days and band like structure anterior to vestibule, dividing lumen of the vagina into two parts with palpable fetal parts cranial to dorso ventral band extended cranially up to uterus and appeared as a septum. The mammary glands were edematous with milk. Transabdominal ultrasonography revealed a 52±1 days old dead fetus as assessed by biparietal head diameter. A dead male fetus was delivered by laparo-hysterotomy under general anaesthesia and the surgical incision on the body of uterus confirmed the presence of duplex cervix.

**Keywords:** American pit bull, dystocia, duplex cervix

### Introduction

Uterine body, uterine tubes, cervix, and anterior vagina are formed by the fusion of the paramesonephric duct. In dogs, persistence or failure to undergo regression of paramesonephric septum results in imperforate hymen, vaginal septum and duplication of vagina (Burdick *et al.*, 2014) [2]. In woman duplex cervix is well documented (Rose and Peterson, 2009) [4], but similar condition in dog is rare, and the present communication reports a rare case of duplex cervix in a female dog.

### History and Clinical Findings

A female American pit bull dog aged one and half a year with the history being artificially inseminated 54 days back, vaginal discharge and uneasiness was presented to the Department of Veterinary Gynaecology and Obstetrics clinics, Veterinary College, Hebbal, Bengaluru. Colposcopy with endoscope revealed brownish mucoid discharge from vagina and a septum anterior to vestibule dividing vaginal lumen into two parts and this dorso-ventral septum extending cranially up to uterus was recognized (Fig. 1 & 2). The mammary glands were edematous and filled with milk. Biparietal diameter of the fetus estimated by trans-abdominal ultrasonography (Fig.3) revealed a 52±1 day's old dead fetus. Since the fetus was dead, whelping was effected by Laparo-hysterotomy.

### Treatment and Discussion

Following laparo-hysterotomy under general anaesthesia, a dead male fetus was delivered and the surgical incision of corpus uteri confirmed the existence of double cervix and duplication of vagina. Previous reports have documented congenital defects of genital tract in adolescent dogs posing difficulty during natural breeding (Kieves *et al.*, 2011) [3]. Since, this dog evinced difficulty for natural mating and the owner had opted for artificial insemination. Owing to the hereditary of the condition, Arlt *et al.* (2012) [1] recommended ovariohysterectomy to check propagation of such genes in the population. However, appraising the breed value of the animal, the owner insisted to retain the reproductive propensity, hence, ovariohysterectomy was not opted in the present case. Post operatively Ceftriaxone (15 mg/kg b.wt) and Tramadol (2.2 mg/kg b.wt) were given I.V and six days oral Cephalexin b.i.d (22.5 mg/kg b.wt) was prescribed. Animal had uneventful recovery; skin sutures removed 10 days post operatively.

### Conclusion

Breeding soundness evaluation of female dogs prior to breeding is an essential prerequisite to be stressed upon and thus, such complications can be prevented.



**Fig 1:** Clinco-gynaecological examination



**Fig 2:** Vaginal septum extending cranially up to uterus from vestibulo-vaginal junction



**Fig 3:** Ultrasonographic examination revealing dead fetus and its age



**Fig 4:** Sterile plastic sheath passed through surgical incision on corpus-uteri confirming the duplex cervix (two separate vaginal openings)

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