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Accidental finding of uterine serosal inclusion cysts in a mongrel bitch: Case report

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Abstract
A Four year old Mongrel bitch was admitted to the Small Animal Gynaecology and Obstetrics Unit, Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal for sterilization. General clinical examination revealed all the physiological parameters were within the normal range. Under general anaesthesia ovariohysterectomy was performed as per standard protocol. Examination of the uterus revealed multiple inclusion serosal cysts on the surface of the uterus**.** Post-operatively the bitch was treated with antibiotics, analgesics and fluids for 5 days. The animal recovered uneventfully.

Keywords: Serosal cysts, general anaesthesia, physiological

Introduction
Structures called serosal inclusion cysts are generated by the mesothelial cells in the female uterus. It manifests during the postpartum uterine involution when mesothelial cells become imprisoned in the uterus' serosa as a result of the myometrium's rapid contractions. The increased uterine contraction brought on by the high estrogen levels during the estrus cycle can occasionally serve as a causal factor (Vural *et al*., 2004) [9]. Although the creation of these cysts does not appear to affect fertility, it has been suggested that hormonal imbalances may be a factor (Schlafer and Miller, 2007) [8]. Serosal inclusion cysts are frequently seen in either solitary or multifocal form during ovariohysterectomy in dogs (Kennedy and Miller, 1993, Vural *et al*. 2004, Schlafer and Gifford, 2007) [4, 9, 8], cats (Godfrey and Silkstone, 1998) [3], and water buffaloes (Saxena et.al, 2006) [6], and in Antalion water buffalo uterine serosal inclusion cyst was seen with oviduct cyst and incidentally uterine inclusion cysts have been described in sow during post mortem examination in slaughter house. A case of uterine serosal inclusion cysts was noticed in a four year old Mongrel bitch was described in this report.

Case history and observation
A Four year old Mongrel bitch was admitted to the Small Animal Gynaecology and Obstetrics Unit, Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal for sterilization. The animal was apparently healthy and weighed 15 kg. There was no history of genital problems. Further anamnesis revealed that the bitch whelped three months back. Upon physical examination all the parameters were within the normal physiological range. Blood was collected and examined, which indicates the normal hematological and serum bio chemical parameters.

Treatment and Discussion
The animal underwent anesthesia. Pre-medicating was done using Inj. Xylazine 1 mg/kg I/M and Inj. Atropine 0.02 mg/kg S/C. Ketamine injections of 5 mg/kg and injections of 0.5 mg/kg diazepam were used for induction. 2.5 mg/kg of intravenous ketamine was administered for maintenance. The uterus and ovaries were exteriorized during a mid-ventral celiotomy, which was done in accordance with standard operating protocol. By using routine techniques, the

abdominal muscles were sutured.

After the ovariohysterectomy, the bitch underwent post-operative care for five days and made a smooth recovery. On the surface of the uterus, several inclusion serosal cysts have been found during a gross examination of the genital tract. The uterine body and both horns were covered with the cyst. The cyst's diameter ranges from 0.5 to 1.2 cm. Each cyst had a thin wall and held a thin fluid (Fig.1). Examining the uterus's lumen indicated fluid buildup and thicker endometrium. From the cyst, fluid was removed and sent for analysis. Neutrophils and macrophages were found in moderate numbers in the cystic fluid, according to the investigation. Both of the ovaries were found to be normal upon examination.

Fig 1: Uterine serosal inclusion cysts in a bitch

Serosal inclusion cysts are more common in older pluriparous bitches and are typically localized rather than diffused (Kennedy and Miller, 1993; Arnold *et al*., 1996) [4, 1]. In this instance, cysts covered the entire uterus. On the serosal surface of the uterus, serosal inclusion cysts are fluid-filled cystic formations with thin walls. While uncommon in cats, it is prevalent in dogs. According to T. Sathiamoorthy and S they are frequently many and joined by a thin stalk of serous membrane. According to Godfrey and Silkstone (1998) [3], the cyst is believed to be physiologically dormant and clinically benign without affecting reproductive function. According to hormonal imbalance may be linked to cyst formation. The present bitch had no genital problems and had been littering frequently. On the other hand, Arnold *et al*., 1996 [1] observed aberrant vaginal discharge in a German shepherd bitch with serosal inclusion cysts for several weeks. In their 2006 investigation on the reproductive disorders of stray bitches, Ortega-Pacheco *et al*. found that 5% of them had serosal inclusion cysts of uncertain clinical relevance.

Summary

A rare case of uterine serosal inclusion cysts in a non-descriptive bitch is reported.

Reference

1. Arnold S, Hubler M, Hauser B, Kaser-Hotz B, Rüsch P. Uterine serosal inclusion cysts in a bitch. Journal of Small Animal Practice. 1996;37(5):235-237.
2. Sevimli A, Ozenc E, Acar DB. Oviduct cyst observed together with a uterine serosal inclusion cyst in the Anatolian water buffalo–a case report. Acta Veterinaria Brno. 2013;81(3):235-237.
3. Godfrey DR, Silkstone MA. Uterine serosal inclusion cysts in a cat. Vet. Rec. 1998;142:673.
4. Kennedy PC, Miller RB. The female genital tract. Jubb, Kennedy and Palmer’s Pathology of Domestic Animals. Academic Press, San Diego; c1993. p. 349-470.
5. Sathiamoorthy T, Raja S. Uterine serosal inclusion cysts in a bitch. Indian Veterinary Journal. 2012;89(12):89.
6. Saxena G, Rani S, Danodia HK, Purohit GN. Pathological conditions in genital tract of female buffaloes (*Bubalus bubalis*). Pakistan Vet J 2006;26:91-93
7. Schlafer DH, Gifford AT. Cystic endometrial hyperplasia, pseudo-placentational endometrial hyperplasia, and other cystic conditions of the canine and feline uterus. Theriogenology. 2008;70(3):349-358.
8. Schlafer DH, Miller RB. Female genital system. In: Maxie M (Eds): Jubb, Kennedy, and Palmer's pathology of domestic animals. Elsevier Limited, China; c2007. p. 429-564
9. Vural S, Haligur MEHMET, Özenç E. Uterine serosal inclusion cysts in dogs: Pathomorphological and immunohistochemical findings. Kleintierpraxis; c2004. p. 49(6).