A case report: The Ovarian remnant within abdominal mass in senile bitch

Auraiwan Klaengkaew1  Techin Inkaew2

1Clinic for small domestic animal and radiology, Faculty of Veterinary Medicine Mahanakorn University of Technology, Bangkok, Thailand
2Khlong Sam Wa animal hospital, Bangkok, Thailand

Corresponding author: Auraiwan Klaengkaew, E-mail: Auraiwan@mutacth.com

Abstract

A 12-years-old spayed female dog presented for evaluation of abdominal pain and bloody vaginal discharge. Physical examination revealing vulva swelling. Vaginal cytology was determined 50% cornified epithelial cells. Results of abdominal ultrasound was presented to a multiple cystic structure within abdominal mass at the right cranial abdomen and uterine stump enlargement. Ovarian remnant syndrome was suspected. The abdominal mass and uterine stump enlargement were removed and submitted for histopathology. The dog had none of sign of abdominal pain and estrus sign resolved after surgery. 

Keywords: Abdominal mass, Ovarian remnant syndrome, Uterine stump

Introduction

Canine Ovarian remnant syndrome (ORS) is an iatrogenic condition after ovariectomy (OVE) or ovariohysterectomy (OVH) [1]. Possible risk factors of canine ORS are associated with surgical experience, position of the celiotomy incision and large, deep-chested dogs [1-3], the incidence of canine ORS was a 0.1% - 0.5% [4-6]. The dog had most often associated with clinical signs of recurrent estrus cycles caused by hormone production from ovarian remnant tissue.

Case description

A 12 years-old, 19 kilogram spay female, Mixed breed dog was presented to a bloody vaginal discharge occurring about 6 to 8 weeks. The dog was reported to have underwent ovariohysterectomy (OVH) at 1-year-old.

Result

Vaginal cytology was determined to 50% cornified epithelial cells on RBC background. US examination was showed a large abdominal mass; an ovoid, multiple cystic structure filled with anechoic fluid (size 8.5 x 10 cm at the Rt.cranial abdomen) (Figure 1A). Nevertheless, the origin of abdominal mass could not be located by ultrasound and uterine stump (thickness 2.78 cm) (Figure 1B). ORS was suspected and subsequently exploratory laparotomy. Abdominal mass was located at Rt. cranial abdomen (nearby ovaries site) and adhesion with mesenteric fat (figure 2). The uterine stump appeared grossly enlarged and purulent exudate. The large abdominal mass and uterine stump were removed. Histopathology diagnosis of abdominal mass was fibrotic tissue.

Discussion

The presence of clinical signs from ovarian remnant hormone usually occur within early one week to as late as 11 years after gonadectomy [1]. This evidence corresponded to this case. The dog was shown a recurrent of estrus cycle after 11 years of the original OVH and presented for clinical sign of abdominal pain similar to ORS in women [8]. In addition to physical examination and estrus sign, US examination can be helpful a diagnostic tool to confirm ORS and it may also be rule out adrenal gland tumors which is similar to ORS by producing sex hormones [1, 10]. In this case, US results were showed a multiple cystic structure within abdominal mass at Rt. cranial area, uterine stump and vaginal cytology was represented to estrus cycle. Therefore, ORS was suspected.

This report was consistence with previous ORS clinical reports in dogs that the location of residual tissue is more frequently found at right ovary, because it may also be more cranial of abdomen and difficult to access and exteriorize [1]. In this case, the cause of ORS may be poor visibility of the ovarian due to the dog had a deep- chest breed. The surgical removal of ORS is also the treatment of choice and submitted for histopathology [1, 11]. Although, histopathology result in this case did not confirm to ovarian tissue. The characteristic of reactive fibroblasts from abdominal mass probably ovarian capsule and some regenerated vessel.

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Reference