Segmental aplasia of uterine horn in bitch: Case report

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Introduction
Developmental defect of Müllerian ducts may cause anomalies in various parts of female reproductive tract such as ovarian agenesis and hypoplasia, segmental aplasia of oviducts, uterus and vagina (2). Developmental failure of uterine part is considered segmental aplasia, since a segment of Müllerian ducts fails to develop, of which may involve either or both of uterine horns, partially or entirely (5). Here we reported a rare case of segmental aplasia of uterine horn in a young bitch.

Case report
A 1-year-old Pomeranian bitch presented at the hospital for spaying. General examination did not reveal any preoperative problems or defects of the external genitalia. Ovariohysterectomy was then performed. During the surgical procedure, it revealed abnormal left uterine horn as a cord-like piece of tissue approximately 8.5 cm long and a maximum width of 0.1 cm connected between left ovary and cervix (Fig. 1). However, both left and right ovaries were normally developed and equal in size. Multiple cross sections of the normal right uterine horn, both ovaries and cord-like tissue were examined microscopically.

Histological examination revealed normal development of the right uterine horn (A) and undeveloped left uterine horn presented as smooth muscle with fibrous tissue (B) (hematoxylin and eosin staining, original magnification x 100).

Figure 1 The cord-like tissue (arrow) connecting between the left ovary and the cervix.

Figure 2 Histological examination revealed normal development of the right uterine horn (A) and undeveloped left uterine horn presented as smooth muscle with fibrous tissue (B) (hematoxylin and eosin staining, original magnification x 100).
Discussion
Segmental aplasia of the uterine horn is an unusual and often incidental finding in bitch (1). Some bitches with segmental aplasia—including the present case have normal ovaries. These animals can exhibit typical estrous behavior but either fail to become pregnant (bilateral lesion) or, if becoming pregnant, have small numbers of offspring (unilateral lesion) (5).

Due to the occlusion of the female tract, some bitches might also show specific complications such as hydrometra cranial to the non-developed part (4,3). Since the current case revealed the segmental aplasia of left uterine horn with normal developments of both ovaries, it was risked to unpredictable pregnancy’s complications if not undergoing surgical removal.

References

Figure 3 Both ovaries revealed the oocytes at the different stages of development (hematoxylin and eosin staining, original magnification x 100).