

A Rare Case of Endometrioma in a Bitch. Acta Veterinaria Scandinavica. 2015. Paiva et al.
www.ncbi.nlm.nih.gov/pubmed/26084327

Case: **11 yo Female Canine - German Shepard**
Dehydration, Anemia, Prostration

Post Mortem Exam: 600ml reddish-translucent ascites; pallor and large mass.

Mass: Retroperitoneal near L. Ovary and Uterus.
Reddish 25.0 x 20.0cm
Solid with coagulated blood filled cysts of various sizes.

Dx: Macroscopic/Microscopic &
Immunohistochemical: **Endometriosis**
Uterine 'like' Endometrioma

“In dogs, endometrial shedding does not occur and the bleeding during estrus comes from red cell diapedesis from blood vessels.”

“In bitches, morphological changes of the coelomic mesothelium as cysts and tumors are relatively common compared to other species. Therefore, the coelomic metaplasia theory of the parietal peritoneum better supports the development of the ectopic endometrial tissue in this case.

This theory has also been suggested to explain the genesis of endometriosis in men and women outside of reproductive age as well as endometriosis in distant extra-pelvic organs.”

A Case of Spontaneous Abortion Related of Ovarian Endometriosis in a Golden Retriever Dog. –Demirel, M.A. Iranian Journal of Veterinary Research. 2017;18(1):63-66

<https://www.ncbi.nlm.nih.gov/pubmed/28588636>

Case: 4yo Female Canine – Golden Retriever
follow-up assessment after spontaneous abortion

Laparotomy: 5cm x 4cm x 4cm Ovarian Cyst.
Ovarian stroma covered with luteinizing cells and
midline hemorrhagic cyst. Histopathological
analysis: Corpus Luteum and Endometriosis of
Ovary

Discussion: "The maintenance of canine pregnancy is dependent on serum progesterone concentrations ($\geq 2\text{ng/ml}$)....drop lower than this for more than 24-48 hrs., spontaneous abortion becomes inevitable."

"Ovarian endometriosis has been associated with corpus luteum inadequacy and abnormalities of luteal phase progesterone secretion. Studies in women have shown that luteinizing hormone receptor concentrations in ovarian follicles and corpora lutea in cases of ovarian endometriosis are lower than in healthy women".

".....ovarian endometriosis could be one of the possible causes of abortion in dogs."

"....in the case of the spontaneous abortion in a dog, the ultrasonographic examination of ovaries and the measurement of progesterone concentrations are important diagnostic parameters."

Histological and Immunohistochemical Characterization of a Case of Endometriosis in a Guinea Pig (*Cavia tschudii*)

Case Reports in Veterinary Medicine. May 2017. Alfonso Baldi, Andrea Lanza, Francesco Menicagli, Pietro G. Signorile, Enrico P Spugnini.
<https://doi.org/10.1155/2017/4594510>

Case: 2yo domestic Guinea Pig (nonmenstruating mammal)
Consult for repeat hemorrhagic tissue expulsion from uterus and progressive weight loss. Unable to conceive with repeat mating. Surgical findings: "enlarged and congested ovary and uterus with signs of peritonitis, including intraperitoneal fluid."

"Histopathologic analysis revealed characteristic features of endometriosis both in the uterus (adenomyosis) and ovary (endometrioma)."

..."endometriosis has been considered as a disease not present in non-menstruating animals"
(lack of retrograde menstrual debris – fundamental to Sampson's Theory from the 1920's)

"The case presented, together with a few data presented in the current literature about endometriosis in mammals supports the hypothesis that endometriosis is a disease related to some alterations in the morphogenesis of the female genital system and therefore can be found in several mammals. It is possible that (with endometriosis being a disease that cannot be clearly diagnosed with serological and instrumental analysis) its presence and incidence in animals is largely underestimated."

Case study supports findings in human female fetuses and males (nonmenstruating). (refs)

"...molecular events acting in a critical window of time during embryogenesis could cause...the displacement of endometrial tissue during the earlier stages of organogenesis." WB2017