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Cystic endometrial polyp of the uterine body and cervix in a 10 year-old bitch: Clinical, pathological and immunohistochemical study

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Cystic lesions of canine uterus include several conditions with cystic endometrial hyperplasia being the predominant. 1 Endometrial polyps are rare in all species although are more frequently diagnosed in dogs and cats. In dogs, they are typically small, single, located in the horns, and frequently asymptomatic. 1,2,3 Microscopically, they are characterized by irregular glands, some of them dilated, embedded in a fibrous stroma. Polyps with muscular stroma are even rarer and mainly described in cats. The objective of this study is to present a case of an endometrial polyp in a bitch located in an atypical location and composed of stroma with important myomatous component. A nulliparous, non-neutered, cocker, 10-year-old bitch with a history of sanguineous vaginal discharge of two days accompanied by anorexia, polydipsia and polyuria was presented for examination. Hematological and biochemical parameter were within the normal range. Pyometra was suspected and ovariohysterectomy was performed. On gross examination, the uterus was irregularly dilated and a 4 cm rounded prominent mass was identified in the region of body and cervix. At opening, severe hemometra was demonstrated and the mass corresponded with a reddish cystic and soft lesion, protruding from the uterine wall through a relatively broad sessile base. Microscopically, irregular sized glands, some of them cystic, embedded in a dense fibromuscular stroma were seen. Gland were lined by a cuboidal to columnar epithelium in the small acini and cuboidal and flattened in the cystic glands. In the latter, multifocal foci of squamous metaplasia and groups of cells with vacuolated cytoplasm were observed. The lumen of the cysts contained an amorphous eosinophilic material. Focal adenomyosis was also observed. A purulent endometritis was demonstrated in the uterus and the ovary had several corpora lutea. Immunohistochemistry demonstrated marked staining for vimentin and alfa-smooth muscle actin in the stroma, and cytokeratin in the epithelial lining. SMA staining predominated around glands. F-VIII antibody evidenced numerous blood vessels. Ki-67 antibody showed sporadic and weak staining in both epithelial and mesenchymal components. Endometrial polyps with muscular stroma are rarely observed in dogs and they should be differentiated from adenomyosis. In our case, immunohistochemistry demonstrated a strong myomatous component and adenomyosis was also suspected; however, gross aspect suggested an endometrial polyp because of the sessile base and projection into the uterine lumen. Its location and size were atypical as most cases are small and located in the horns. Most of them are asymptomatic and associated with cystic endometrial hyperplasia. In this case was associated with hemometra and no evidence of CEH was seen. In human, they occur more frequently and some are considered as a premalignant lesion. In cats, myomatous stroma is most often reported and considered a preneoplastic change.3 In this case, Ki-67 staining suggested scarce proliferative status. In this case, the cause of the endometrial polyp was considered a progesterone stimulation as the presence of vacuolated cells is characteristic.