

CLINICO-PATHOLOGICAL CONDITIONS OF FEMALE GENITAL TRACT IN CANINES-A SURVEY OF 79 CASES.

N.P. Dakshinkar, M.S. Dhakate, V.P. Pathak, D.R. Kalorey, S.S. Marudwar and S.N. Patil
Nagpur Veterinary College, Nagpur - 440 006

Studies of canine female genital tract have been largely concerned with uterine affections and the ovarian abnormalities have received comparatively little attention. Mulligan (1949) reported seven ovarian neoplasms out of 1000 cases (0.7%), Cotchin (1959) and Brodey (1971) found 12% and 0.31% cases of ovarian tumors respectively. In the present study, female genital tract was collected from 79 cases brought to the College Clinic for ovariohysterectomy or post-mortem examinations and was studied for pathological changes.

Materials and methods

The specimen of ovary and uterus collected from clinical cases and on post mortem were subjected to histopathological examination employing standard techniques of processing and staining (H and E). The status of bacterial infection was assessed using a standard disc method for antibiotic sensitivity of samples of uterine contents. Based on the observations, the pathological conditions were grouped categorywise.

Results and discussion

Five primary pathological conditions were noticed and their distribution with reference to age and breeds of dogs are presented in Table 1.

Twelve specimens were found to be affected with five primary conditions with the incidence more with cystic endometrial hyperplasia. The age of the animals in the affected cases ranged from 2.2 to 5.46 years. The animals in which

endometrial hyperplasia was detected, the clinical symptom was mucoid vaginal discharge with distended abdomen. Histopathological examination revealed papillomatous mucosal proliferation, prominent uterine glands and cystic degeneration, (Fig. 1). Dehner *et al.* (1970) attributed CEH to endocrine disturbance and mucin production to the hyperplastic change. Although this change was reported to be frequent in older dogs (Daw, 1959), in the present study the condition was noticed in animals of 3-6 years of age. It is believed that endometrial hyperplasia is a manifestation of overstimulation of the uterus by oestrogens in the absence of progesterone activity. Antibiotic sensitivity test revealed highest invitro sensitivity against Gentamycin, Norfloxacin, Colistin and Cefotaxime. The isolates were resistant against penicillins.

An ovarian teratoma was observed in an Alsatian female dog of 20 months age. The uterine horns were normal and the left ovary had a large, highly vascular mass attached to it. Histopathological examination revealed large amount of fibrous connective tissue, numerous cystic cavities lined by squamous cells, large number of histiocytes and lymphocytes, and blood vessels and nerves. These histological findings resembling several organ systems confirmed it as teratoma (Crane *et al.*, 1975). Ovarian dysgerminoma was observed in a pomeranian aged 14 years. The abdomen was distended with a palpable hard mass inside and skin showed hyperpigmentation. In laparotomy, the mass was seen on the left ovary. Histopathological examination revealed atretic follicles and invasion of ovarian tissue by fibrous connective tissue.

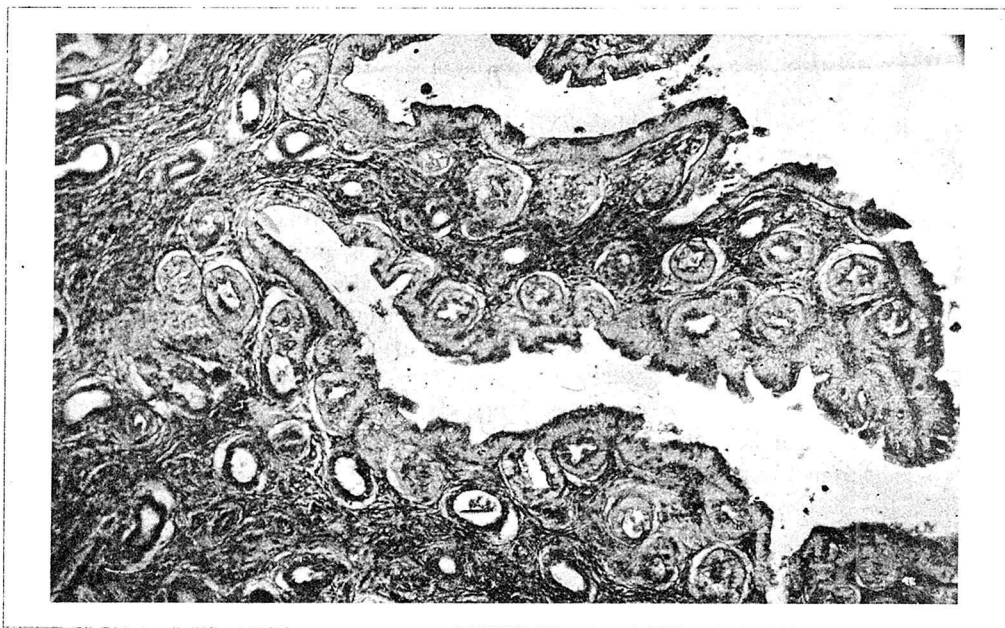


Table 1 Pathological conditions in canine genitalia

Breed	Mean age in years	Cystic endometrial hyperplasia	Teratoma	Dysgerminoma	Fibroma	Carcinoma
Alsatian	4.5±0.83	-	1	-	-	-
Mongrel	3.19±0.26	3	-	-	-	-
Doberman	5.5±1.19	4	-	-	-	-
Labrador	2.2±0.26	-	-	-	-	1
Pomeranian	5.46±0.95	-	-	1	2	-

Carcinoma of the uterus was observed in a nulliparous animal aged 3 years. The endometrium showed carcinomatous changes but the ovaries were normal. Though carcinoma of endometrium is believed to be caused by prolonged, excessive estrogen stimulation, (Sooins, 1957) there was no ovarian change observed in the present study.

Summary

Seventy nine canine genitalia were screened for pathological changes. 12 specimens showed lesions in uterus and ovary and the lesions were cystic endometrial hyperplasia, uterine carcinoma, teratoma and dysgerminoma.

Acknowledgement

Sincere thanks are due to Associate Dean, Nagpur Veterinary College, Nagpur for providing necessary facilities.

References

- Brodey, R.S. (1971). Canine and Feline neoplasia. *Adv. Vet.Sci. and Comp. Med.* **15**: 309.
- Cotchin, F. (1959). Some tumours of Dogs and cats of comparative Veterinary and human interest. *Vet. Rec.* **17**: 1041.
- Crane, S.W., Barllay, S., Edward, A. and George, P. (1975). Malignant ovarian teratoma in a bitch. *JAVM* **167**: 72-74.
- Dehner, L.P., Nooris, H.J., Garner, F.M. and Taylor, H.P. (1970). Comparative pathology of ovarian neoplasms. III. Germ cell tumours of canine, bovine, feline, rodent and human species. *J. Comp. Path.* **80**: 299-306.
- Daw, C.J. (1959). The cystic hyperplasia phometra complex in the bitch. *J. Comp. Path.* **69**: 237-250n.
- Mulligan, R.M. (1949). Neoplasms of the dog, Williams and Wilkins, Baltimore.
- Plate 1: Photomicrograph showing papillomatous projections and prominent uterine gland some of the gland show cystic degeneration. (H and E x 32).