The AJAS THE ASIAN JOURNAL OF ANIMAL SCIENCE
Volume 7 | Issue 1 | June, 2012 : 69-71

REVIEW ARTICLE

Evaluation of canine neoplasms in and around Kolkata, India

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ABSTRACT - In the present study it was found that incidence of occurrence of skin neoplasms was the highest (42.64%) among dog population in and around Kolkata (West Bengal, India) which was followed by neoplasms in venereal organs (23.54%), mammary glands of bitches (20.58%) and other gastrointestinal organs (13.24). Based on gross and histopathological studies skin neoplasms were mainly composed of fibrosarcoma, hemangiosarcoma, squamous cell carcinoma, basal cell epithelioma, sebaceous adenoma, perianal adenoma and adenocarcinoma of sebaceous glands. Gross and histopathological studies of neoplasms of mammary gland revealed that the neoplasms were mostly of adenocarcinoma cystic papillary form, mixed mammary carcinoma, cystic papillary form, adenocarcinoma infiltrating type, adenocarcinoma tubular type, mixed mammary tumor and fibroadenoma. Canine transmissible venereal tumors were seen mostly in Alsatian and mongrel bitches. The lymphosarcoma was the predominant venereal neoplasm which is located as nodular growth in the inner surface of vaginal wall in bitches. There was bleeding from the growth. Disease was found to be predominant in 4-12 years age group of dogs.

KEY WORDS - Histopathological studies, Mammary gland, Canine neoplasms,Venereal tumors

HOW TO CITE THIS ARTICLE - Mukhopadhayay, S.K., Ganguly, S., Niyogi, D., Pal, S. and Kar, I. (2012). Evaluation of canine neoplasms in and around Kolkata, India. *Asian J. Animal Sci.,* **7**(1) : 69-71.

ARTICLE CHRONICLE - Received : *03.04.2012;* Accepted : *07.05.2012*

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A neoplastic proliferation is an abnormal growth of tissues which develops in an uncoordinated and uncontrolled manner as a result of some unusual stimulus. It does not serve any useful purpose to the host rather proves to be harmful which varies according to the nature of neoplasms. It disturbs the normal physiological mechanisms of the body depending on its lodgment. Neoplasia involves some permanent tissue alterations, manifesting itself in excessive tissue multiplication and can be transmitted through generations. The highest percentage of neoplasm was found in the skin and connective tissue area, followed by mammary glands and venereal areas in dog (Moulton, 1978; Mukhopadhayay *et al.,* 2011). Venereal tumour is a very common pathological condition in dogs. These tumors in dogs may show malignant features, but clinically only very advanced cases exhibit malignancy. Besides, a few of these growths exhibit autoregression. This study deliberates the histopathological characterization of different types of canine venereal tumor encountered in the dogs (Mukhopadhayay and Ganguly, 2011).

Materials for this investigation were collected from various veterinary hospitals located within Kolkata metropolis. The dogs presented with detectable growths in various parts of their bodies were studied carefully for any clinical abnormality.

Altogether, 136 neoplasms could be detected during the study period. The gross appearance of each tumor mass was recorded. Few pieces of tumor tissues were collected after biopsy. The tissues thus collected were kept in vials containing neutral formal saline solution for histopathological examination in the laboratory.

Biopsied skin tissues were processed and stained by Haematoxylin and Eosin method as per the procedure described by Lillie (1954). Then the slides were mounted with