



INCIDENCE OF SUPERFICIAL TUMOURS IN DOGS IN THRISSUR

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Abstract

The incidence of cancer in companion animals is on the rise. Tumours of the skin and subcutaneous tissues are the most common tumours affecting dogs, accounting for approximately one third of all tumours encountered in the species. Mammary neoplasms in dogs come next in order after skin tumours. Various predisposing factors for cancer are age, sex and breed. In the present study, during a period of three years from 2010 to 2012, the incidence of superficial tumours were observed more in pure bred animals in age group ranging from seven to fifteen years. It was also found that unspayed dogs were more prone to tumours.

Keywords: Superficial tumour, dogs, Thrissur

The skin is prone to neoplastic proliferation as it is continuously exposed to a wide variety of chemical and physical insult and other environmental factors. Tumours of the skin and subcutaneous tissues are the most common tumours affecting dogs, accounting for approximately one third of all tumours encountered in the species (Brodey, 1970). Mammary neoplasms in dogs are the second most common neoplasms after skin tumours. There are various factors which predispose the animal to cancer such as age, sex and breed. The incidence of canine mammary tumours and cutaneous tumours increases rapidly at the

onset of “cancer age” (6 – 7 years), whereas the occurrence was rare in dogs of less than two years of age (Moulton, 1990). It has been reported by several authors that pure breeds had a significantly increased risk for neoplasms. The present study aims in determining the prevalence of tumours in and around Thrissur.

Materials and Methods

The study was carried out based on the data available at the University Veterinary Hospitals, Mannuthy and Kokkalai, during the period of three years between 2010 and 2012. Parameters studied were incidence of superficial tumours in 280 cases presented during the period. The details of data regarding the distribution pattern of superficial tumours in dogs, occurrences of tumours in sex, different breeds and age groups were subjected to the study. The study was conducted as a part of the research work conducted for the superficial tumour therapy using iron oxide nanoparticles – doxorubicin complex in dogs. The data were analyzed based on age, breed and sex to find out the trend of prevalence of tumours in dogs in and around Thrissur.

Results and Discussion

Among 280 cases studied, 96 cases (34per cent) were reported in the year 2010, 87 cases (31per cent) in 2011 and 97 cases (34.6per cent) in 2012 (Fig 1). Out of the 280 cases, 233 cases

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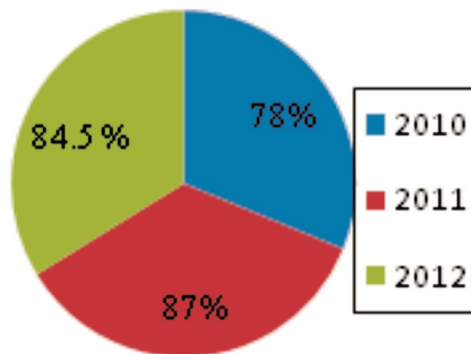


Fig 1. Incidence of tumours in a span of three years

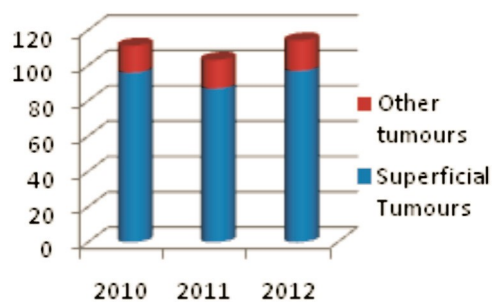


Fig 2. Occurrence of superficial tumours

(83.2 per cent) were superficial tumours including mammary tumours. The incidence of superficial tumours was 78 per cent in 2010, 87.3 per cent in 2011 and 84.5 per cent in 2012. (Fig 2)

The incidence of tumour were noticed in the age group of seven to 15 years. The study revealed that the incidence was more during the cancer age. Similar findings were noticed by Simenov *et al.* (2011), Yamagami *et al.* (1996) and Dhama *et al.* (2010).

It was observed that the breeds in the study were pure breeds which included Dachshund, Pomeranian, Doberman and German Shepherd. Kumar *et al.* (2011) and Brodey *et al.* (1983) also reported higher incidence of tumour in pure breeds than in cross breeds. All the animals studied were unspayed indicating relationship with the age and sex of the animals. It was found that mammary tumours constituted a major per centage of tumour in the cases studied as reported by Moulton *et al.* (1999). They reported that mammary tumours were the second most common group of neoplasms in dogs following skin tumours and that panhysterectomy could reduce the incidence

of mammary tumour (Brodey *et al.*, 1983).

The results of the present study indicated that the incidence of cancer was more in unspayed females belonging to pure breeds at an average of 10 years. Necessary precautionary measures are essential in preventing the incidence of superficial tumours so as to prolong the length and quality of life of dogs.

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