



Short Communication

Incidence of canine cataract in Palampur, Himachal Pradesh

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Vision is a highly complex phenomenon in which light emanating from objects in the environment is captured by the eye and focused onto the retinal photoreceptors. The lens accounts for 30-35% of the total refractive power of eye. Of all ocular disorders in general and lenticular conditions in particular, opacity of eye lens 'the cataract', is the most common surgical affection and the major cause of blindness in dogs (Gwin and Gelatt, 1981). The incidence of lens affections in dogs is as high as 34% (Sale *et al.*, 2013). Present study was conducted to get an idea of incidence of cataract cases in Palampur, Himachal Pradesh.

The eyes of a total of 1378 dogs presented to the Department of Veterinary Surgery and Radiology from 1 July 2015 to 31 April 2017 were examined to find out the incidence of cataract among the registered cases. The incidence of cataract was recorded in terms of breed, age, sex and involvement of the eye (unilateral or bilateral). The cataract patients were placed in the age groups of <1 year, 1-2 years, >2-4 years, >4-6 years, >6-8 years and >8 years.

Thirty dogs were confirmed to have cataract, an incidence of 2.39%. Nair *et al.* (2007) have reported an incidence of 0.29% in a study conducted at Veterinary College, Bangalore. The positive cases of cataract were highest in Mongrel/Non-descript and Labrador (23.33%) followed by Pomeranian (16.66%), Pug, Lhasa, Pit-bull, Cocker spaniel (6.66%), Gaddi, Pakistani Bully and Pointer (3.33 %). The incidence of cataract was higher in small breeds

of dogs, which might be due to mere more representation of small breeds in comparison to large breeds. Nair *et al.* (2007) also found highest incidence of cataract in small breed i.e. Pomeranian (44.44%).

Cataract was observed most frequently among the dogs of 8 or more years of age (30%) followed by >4-6 years (20 %), >2-4 year (16.66%), <1 years and >6-8 (13.33%) and 1-2 years (6.66%). Nair *et al.* (2007) and Jhala *et al.* (2009) also observed a high incidence of canine cataract at the average age of 10.58 year and 9.89 year respectively. Williams *et al.* (2004) reported that there is some degree of lens opacity in every dog above 13.5 years of age. Gwin and Gelatt (1981) opined that senile cataract generally occurs in dogs over six years of age. The pathogenesis of age-related cataracts in dogs is unknown. Much of the speculation regarding the pathogenesis of senescent cataracts in humans focuses on the photooxidative injury to the lens, the consequence of decades of exposure to ambient solar radiation and ultraviolet wavelengths of light (Andley *et al.*, 2000; Spector, 1995; Taylor *et al.*, 1988).

Bilateral cataract was observed in 24 dogs (80%) of patients and rest had involvement of left eye in 4 cases (13.33%) and right eye 2 cases (6.66%). The incidence of cataract was higher among the males 22 (73.33%) than the females 8 (25.80 %). However, Nair *et al.* (2007) observed a higher incidence among the females (55.56%) than the males (44.44%). The present study revealed that most of the cataract patients had bilateral involvement, which was in agreement with the findings of Jhala *et al.* (2009). A

high incidence of bilateral cataract in the present study might be attributed to senility as the incidence was high among the dogs above 6 years of age. The increase in incidence of cataract with the increase of

age might be due to gradual degeneration of lens fibers because of ageing of the lens components (Gwin and Gelatt, 1981).

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