

INCIDENCE OF CATARACT IN DOGS : A RETROSPECTIVE STUDY

C. Ramani, Manoj Kumar Ahirwar, Mohd. Shafiuzama,
Nitin J D'souza and L. Nagarajan

Department of Veterinary Surgery and Radiology,
Madras Veterinary College, Chennai 600007.

Received : 25.06.2013

Accepted : 06.09.2013

ABSTRACT

Retrospective data on the incidence of status of cataract were obtained for a period of two years from October 2009 to September 2011 after scrutinizing the hospital record at ophthalmology unit, Department of Veterinary Surgery and Radiology, Madras Veterinary College Teaching Hospital. A higher incidence of cataract was observed in the breed Spitz aged between 7-15 years.

Key Words- Incidence, cataract, dogs.

INTRODUCTION

Cataract is an opacity occurring in the lens, due to degenerative changes. Cataract can affect one or both the eyes. Cataract is among the most common intraocular lesions and is a leading cause of vision loss in dogs (Adkins and Hendrix, 2005). Heredity, metabolic diseases, senile changes, trauma, nutritional deficiencies, toxins, drugs, radiation therapy and inflammation can all cause cataract in dogs (Davidson and Nelms, 1999).

Dogs presented for cataract evaluation frequently have severe vision deficits (Elizabeth and Hendrix, 2003). Because of the variable nature and appearance of cataracts, numerous methods of classification are commonly used. On the basis of stage of development, it is classified as incipient,

immature, mature, hypermature, (maturity) morgagnian and is the classification usually preferred by surgeons in the clinical assessment.

A complete ophthalmic examination includes evaluation of papillary light and menace responses, Schirmer's tear test, measurement of intraocular pressure, slit-lamp biomicroscopy or light examination of the anterior segment, keratometry, A- scan ultrasonography and indirect or direct ophthalmoscopy after instillation of a mydriatic. Fundic examination is quite important in cataract patients to assess the stage of cataract.

Surgical techniques performed for removal of cataract are phacoemulsification, extracapsular cataract extraction and intracapsular cataract extraction.

Corresponding author : E-mail : ramani@tanuvas.org.in

Phacoemulsification (phacofragmentation) is by far the most commonly used method of cataract removal in dogs. This document presents a retrospective study on the incidence of corneal ulcer causing corneal pathology in dogs at Madras Veterinary College Teaching Hospital, Chennai.

MATERIALS AND METHODS

Medical records and diagnostic ophthalmoscopic tests were performed in dogs presented to the small animal ophthalmology unit of Madras Veterinary College, Chennai over a period of 24 months (Oct 2009 to Sep 2011) for condition related to the eye. A total of $n = 3650$ dogs were screened in this study. Among this 844 dogs belonged to lens disorder. Detailed ophthalmic examination were performed by direct, indirect ophthalmoscopy, and A-scan ultrasound to diagnose the lens constituents, pathology and later confirmed as cataract. The incidence of cataract with reference to age, breed, gender and involvement of one or both eyes were analysed and presented.

RESULTS AND DISCUSSION

A total of 3650 dogs were presented to small animal ophthalmology unit with ophthalmological complaint during the period of 24 month (oct2009 to sept2011); out of which 844 dogs (23.12%) were diagnosed to have cataract by routine diagnostic methods and remaining 2806 (76.88%) were presented for other ocular pathology at Madras Veterinary College Hospital. This differs from findings of Sellamani *et al.* (2008) who found the year wise incidence of cataract to average 18.20%.

In this study, the age group of 7 to 15 year had the highest incidence (50.22%) of cataract, followed by 0 to 3 year age group dogs (19.5%) and 3 to 7 year age group dogs had incidence of 30.80%. Whereas Rajasekaran *et al.* (2007) had found incidence of cataract 0 to 6 year age group had highest 40.33%, followed by 12 to 15 year 18.52%, the 8 to 10 year age group had an incidence of 18.11%, 6 to 8 year age group had an incidence of 15.23% while the 10 to 12 year age group had the lowest incidence 7.89% of cataract in dogs.

The breed wise distribution of cataract showed highest incidence in Spitz (36.49%), followed by Non-descript (21.8%), Labrador (14.2%), German shepherd (6.06%), Cocker Spinal and Rottwieler (5.2%), Terrier (3.3%) and other breeds had incidence of (3.78%) of cataract. Whereas Rajasekaran *et al.* (2007) found that per cent of cataract in Spitz as 38.27%, Non-descript 23.46%, Labrador retriever 11.11%, Lhasa apso 7.41%, German shepherd 6.17%, Boxer, Dachshund, cocker spaniel, Doberman pincher, Dalmatian 2.47% and Chippiparai 1.5%. The higher incidence of cataract in small breeds of dogs could be due to inherited cataracts as documented by the Genetics Committee of the American College of Veterinary Ophthalmologists.

With respect to the sex incidence rate was found to be 52.60% in males and 47.40% in females. Whereas, Rajasekaran *et al.* (2007) had reported that the per cent ratio of the incidence of the cataract as 46.91% in males and 53.09% in females.

CONCLUSION

In the present study, a higher incidence of cataract was reported in Spitz breed of dogs

(36.49 %). Thus, the present study documented the need for periodical ophthalmic evaluation in this breed especially 7 to 15 year age group.

ACKNOWLEDGEMENT

The authors are grateful to the Dean, MVC, TANUVAS for the facilities provided for the study.

REFERENCES

- Adkins, E. and D.Hendrix,2005. Outcomes of dogs presented for cataract evaluation: A Retrospective study, *Journal of American Animal Hospital Association* **41**: 235-240,
- Davidson, M.G. and Nelms, S.R.,(1999). Diseases of the lens and cataract formation. In: Gelatt KN (ed): *Veterinary Ophthalmology*, 3rd ed. Philadelphia,Lippincott, Williams & Wilkins, pp: 797– 825.
- Elizabeth A. Adkins and Diane V. H. Hendrix, (2003). Cataract Evaluation and Treatment in Dogs. *Compendium*, **25**, pp:812-825.
- Rajasekaran,R. *et al.*(2007). Evaluation of Phacoemulsification Technique With Implantation Of Foldable or Rigid Intraocular Lens In Dogs.
- Sellamani, G. *et al.* (2008). Evaluation of Visual Rehabilitation in Aphakic and Pseudophakic Eyes Following Phacoemulsification in Dogs.