

Prevalence of Ear and Eye Disorders in Kintamani Dog

Prevalensi Gangguan Telinga dan Mata pada Anjing Kintamani

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ABSTRAK

Penelitian secara observasional dilakukan untuk mengetahui prevalensi gangguan telinga dan mata pada anjing Kintamani. Seluruh data dikumpulkan dari catatan medis pada klinik hewan yang berlokasi di daerah Denpasar, Badung, dan Gianyar. Aspek-aspek yang berkaitan dengan gangguan telinga dan mata dikumpulkan menggunakan kuesioner. Jumlah anjing Kintamani yang terdata dari tahun 2009 sampai dengan tahun 2013 adalah 477 ekor. Hasil penelitian menunjukkan bahwa tingkat kejadian *exophthalmos* dan glaukoma tidak ditemukan pada anjing Kintamani (0%), katarak ditemukan pada satu ekor anjing (0,2%), otitis ditemukan pada dua ekor anjing (0,4%), dan konjungtivitis ditemukan pada tiga ekor anjing (0,6%). Seluruh anjing Kintamani yang mengalami gangguan telinga dan mata berjenis kelamin jantan dan berusia lebih dari 12 bulan. Hasil penelitian mengindikasikan bahwa gangguan telinga dan mata pada anjing Kintamani sangat rendah. Di masa depan, prevalensi rendah ini diharapkan dapat dipertahankan, atau bahkan diturunkan dengan memberikan manajemen pemeliharaan yang baik.

Kata kunci :gangguan telinga dan mata, anjing Kintamani, prevalensi

ABSTRACT

This observational study was undertaken to evaluate the prevalence of ear and eye disorders in Kintamani dog. All data were gathered from registers of veterinary clinic located at Denpasar, Badung, and Gianyar. Various aspects concerning ear and eye disorders were collected by questionnaires. The total of Kintamani dog recorded from 2009 until 2013 was 477 dogs. The result of this study showed that the prevalence of *exophthalmos* (protrusion of the eye ball) and glaucoma were rare (0%), the cataract was occurred in one dog (0.2%), otitis was occurred in two dogs (0.4%), and conjunctivitis was occurred in three dogs (0.6%). All Kintamani dogs with ear and eye disorders were the male and their ages were more than 12 months. In conclusion, this study indicates that the Kintamani dog has a lower problem of ear and eye disorders. In the future, this low prevalence of the problem hopefully can be maintained or even decreased by giving good breeding management.

Key words: ear and eye disorders, Kintamani dog, prevalence

INTRODUCTION

Kintamani dogs are local highland canine, live around Sukawana Village, Kintamani District, Bangli Regency, Bali Province. In history, these canine were called *anjing Gembrong* (Puja, 2007). To day, there is an increasing in Kintamani dog fans because Kintamani dog is the only one Indonesian native dog which has interesting appearance. Kintamani dog has become mascot fauna of Bangli Regency. Since 2012, Kintamani dog has been approved as Asian breed. This approval brings the Kintamani

dog being compatible with other breed (Gunawan *et al.*, 2012). Kintamani dog is one of the common house guard in Bali. Kintamani dog is known as smart dog, brave, strong, and loyal to its owner (Puja *et al.*, 2005). Because of its' excellent genuine characteristics, this canine can be used as companion dog (Puja, 2011).

In order to increase the breeding quality and also to conserve Kintamani dog, all data about prevalence of Kintamani dog disorders must be established. The incident rate of disease/disorder like *exophthalmos*, cataract, glaucoma, otitis, and conjunctivitis is need to

make a better breeding management system. The lack of health information of Kintamani dog, the research about those disorders should be done.

Protrusion of the eye ball from its socket (exophthalmos) is usually the result of direct violence received in fighting. This occasionally occurs from the bite of a larger dog, and eye is forced out of the socket and the lid contracts around it and prevents its return (Tarafder and Samad, 2010). Cataract is cloudy eye lens which can be caused by many factors such as physical factors (trauma), radiation, low temperature, the increasing of intra ocular pressure, toxic, and nutritional imbalance. Glaucoma is the increasing of intra ocular pressure. In animal, glaucoma can be caused by the decrease of humor aqueous elimination. This abnormality mostly occurs in dog, sometimes in cat and horse. Otitis is an infection mostly found in dog ear or ear tube. There are three kinds of otitis according to the inflammation area, namely external otitis, media otitis, and internal otitis. Conjunctivitis is an inflammation on conjunctiva which can occur in many specific diseases such as distemper and canine ehrlichiosis (Dharma and Putra, 1997).

Ear and eye disorders can affect the performance of Kintamani dog, so it is important to find the probability of Kintamani dog suffered from those disorders. It can influence the effort in improve and create proper system and management of Kintamani dog breeding.

MATERIALS AND METHODS

This is an observational study by doing survey with questionnaire. The data were obtained from veterinary clinics in Denpasar, Badung, and Gianyar from 2009 until 2013. The questionnaires of ear and eye disorders were given directly to veterinary clinics. The fulfilled questionnaires were taken back and then analyzed. The total of 477 dog registers was collected and analyzed by descriptive statistics.

RESULTS AND DISCUSSION

Results

According to the analysis of questionnaire, there were 477 Kintamani dogs which spread in three districts in Bali Province with the detail: 348 dogs from Denpasar, 107 dogs from Badung, and 22 dogs from Gianyar. The male Kintamani dogs were 360 (75.5%) and female were 117 (24.5%). The result showed that there was no exophthalmos and glaucoma cases in Kintamani dog, while there was one case of cataract (0.2%) in male dog aged more than 12 months and that case occurred in rainy season. Otitis cases were found in two male dogs (0.4%) aged more than 12 months. One case occurred in dry season and the other one occurred in rainy season. Conjunctivitis cases were found in three male dogs (0.6%) aged more than 12 months. One case of the conjunctivitis was found in dry season and two cases were found in rainy season (Tabel 1).

Table 1. Ear and Eye Disorders in Kintamani Dog

Ear and eye disorders	Indicator									Total	%
	Sex		Age group (month)					Season			
	♂	♀	0 - 3	3 - 6	6 - 9	9 - 12	> 12	Dry	Rainy		
Exophthalmos	0	0	0	0	0	0	0	0	0	0	0.0
Cataract	1	0	0	0	0	0	1	0	1	1	0.2
Glaucoma	0	0	0	0	0	0	0	0	0	0	0.0
Otitis	2	0	0	0	0	0	2	1	1	2	0.4
Conjunctivitis	3	0	0	0	0	0	3	1	2	3	0.6

Discussion

The dogs recorded having the ear and eye disorders were six with the detail: one dog had cataract, two dogs had otitis, and three dogs had conjunctivitis. All dogs that had those disorders were more than 12 months of age (Table 1). In cataract case, the present finding supports the results of the research conducted by Urfer *et al.* (2010). On the other hand, Cook (2008) found that the dogs got cataract were mostly more than 5 years of age. Then, otitis cases that also occurred on age more than 12 months have confirmed the result of previous study by Flynn-Lurie (2009). In contrast, Fraser (1961) found that the frequencies of dogs that got otitis were on the four till six years of age. In the case of conjunctivitis, in general, it can occur on all ages, but from the medical records the cases happened on the more than 12 months of age. Conjunctivitis is the manifestation from many other clinical disorders and can be caused by aging factors. Lourenço-Martins *et al.* (2011) previously reported that the conjunctivitis occurred more frequently on the five year old dogs. However, the present study found that the ear and eye disorders tend to happen on the more than 12 months of age.

Gellat and MacKay (2005) stated that cataract cases in American Cocker Spaniel tend to have higher ratio in female dog, meanwhile the cataract cases ratio are higher in male dogs on Australia Terrier, Brussels Griffon, Japanese Chin, and Bearded Collie. Then, in otitis case according to Bernardo *et al.* (1998), mostly dog got otitis were male (86.8%) of 113 dogs which came from many breeds. From conjunctivitis case study, according to Lourenço-Martins *et al.* (2011), out of 60 dogs in Lisbon Animal Hospital, 33 male dogs (55%) suffered from conjunctivitis, while the other 27 dogs (45%) were female which also suffered from conjunctivitis. Although this study was dominated by male dogs, there is still probability that female dogs can be affected. The percentage of ear and eye disorders in this study was low, cataract case 0.2%, otitis case 0.4%, and conjunctivitis case

0.6%, so that the ear and eye disorder cases only give minimum anxiety in breeding the Kintamani dog. Indonesia has two seasons, those are dry season and rainy season. Dry season starts from April to September and rainy season starts from October to March. Based on the data (Table 1), from six Kintamani dogs that got ear and eye disorders, one cataract case occurred in rainy season, two otitis cases occurred in dry and rainy season, and one conjunctivitis case occurred in dry season, while the other two cases occurred in rainy season. According to this case, it showed that the ear and eye disorders were not affected by the season as long as the case rates were almost the same in dry or rainy season.

CONCLUSION

The ear and eye disorder case in Kintamani dog is very low.

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