

PREVALENCE OF SOME DISEASES OF DOGS AND CATS AT THE STATE GOVERNMENT VETERINARY CLINIC IN MAIDUGURI (NIGERIA)

A. William, S.U.R. Chaudhari¹ and N.N. Atsanda²

Department of Veterinary Physiology and Pharmacology, ¹Surgery and Reproduction and ²Public Health and Preventive Medicine, Faculty of Veterinary Medicine, University of Maiduguri, P.M.B.1069, Maiduguri, Nigeria

ABSTRACT

A 3-year (retrospective) study was conducted to determine the prevalence of diseases clinical conditions of dogs and cats presented at the Government Veterinary Clinic, Maiduguri from January 1995 to December 1997. The prevalent diseases conditions of dogs included helminthosis (19.19%), accidental injury (18.18%), tick infestation (15.15%), canine distemper (8.42%), diarrhoea (6.73%), mange (7.41%), rabies (5.05%) and babesiosis (4.71%). Prevalent diseases conditions of cats included helminthosis (26.67%), tick infestation (8.89%), diarrhea (16.67%), nutritional deficiencies (15.56%) and respiratory infections (12.22%). Of highest prevalence in both dogs and cats was helminthosis (20.93%), followed by tick infestation (13.70%) and diarrhea (9.04%), suggesting a poor husbandry of these pets in Maiduguri area. Cases of automobile accidental injury of dogs were also high, probably due to the same factors of poor husbandry.

Key words: Prevalence, diseases, dogs, cats, Maiduguri, Nigeria.

INTRODUCTION

In most countries of the world, a considerable proportion of the veterinary services to the public is devoted to pet practice. Until recently, however, the major concern of the veterinary profession, particularly in the Northern part of Nigeria, has been with food animals (Idowu *et al.*, 1977; Kornblatt and Schantz, 1980). This is likely due to the greater concentration of livestock in the Northern part of the country. During the last decade, however, small animal practice, especially in the urban areas, has become even more important than it has ever been (Kornblatt and Schantz, 1980).

Generally, pet keeping is associated with certain responsibilities such as housing, disease management and responsible pet ownership with negative consequences for public health when neglected (Mckenzie, 1977). Since pets share the same environment with man, they constitute an important reservoir of zoonotic diseases. In many parts of the world, household pets have been found to play a direct role in transmitting zoonotic diseases (Kornblatt and Schantz, 1980). The gastrointestinal parasites in particular constitute a major source of diseases for dogs in the tropics and have been recognized as an important public health problem in several parts of the world

(Arambulo and Steel, 1976; Cypess, 1978; Karhrs *et al.*, 1978; Dada *et al.*, 1979; Kornblatt and Schantz, 1980).

The routine observations on diseases of dogs and cats presented to the state veterinary clinic in Maiduguri for treatment prompted the authors to carry out this analysis. With greater urbanization of Maiduguri and its environs, more pet animal keepers are emerging with attendant need for periodic survey of prevalence of pet diseases including zoonosis. It is hoped that this analysis will contribute to the available information on the epidemiology of these diseases in Nigeria, particularly in Maiduguri area where such information is lacking.

MATERIALS AND METHODS

The pet animals (dogs and cats) used for this analysis were those presented at the state veterinary clinic, Zone I, Maiduguri from January 01, 1995 to December 31, 1997. The diseases were diagnosed by observations of the authors and clinicians during varying visits to the veterinary clinic. Where doubtful, diagnosis was confirmed at the University of Maiduguri Veterinary Hospital Laboratories and National Veterinary Research Institute (N.V.R.I) diagnostic laboratory. Helminthosis was diagnosed by the egg floatation methods, mange by treatment of skin scrapings in warm caustic soda and microscopic examination.

RESULTS

A total of 387 cases of different diseases conditions were recorded during the three year period with more than half (207) recorded in 1997 alone. Of the total figure, 297 were from dogs and 90 from cats. Table 1 shows the prevalent diseases/conditions diagnosed in the two species during the period under investigation. The diseases/conditions diagnosed in dogs included helminthosis (19.19%), accidental injuries (18.18%), tick infestation (15.15%), canine distemper (8.42%), diarrhoea (6.73), mange (7.41%), rabies (5.05%) and babesiosis (4.71%). In cat, helminthosis (26.67%), tick infestation (8.89%), diarrhoea (16.67%), nutritional deficiencies (15.56%) and respiratory infections (12.22%) were diagnosed. In both dogs and cats, helminthosis constituted 20.93% of the 387 cases while tick infestation and diarrhoea accounted for 13.70 and 9.04%, respectively. A sharp increase in number of cases was observed in both species during 1997.

Most of the pets brought to the clinic with the complaint of frequent vomiting were positive for gastrointestinal parasites and ancylostoma species. *Toxocara* species and coccidia oocysts were the commonest parasites encountered.

DISCUSSION

The total number of cases recorded in this study is likely to be below average for the area because there are more stray dogs and cats than those properly kept by their owners and brought to the clinic for medical attention. Since this three-year analysis concerned pet animals presented to the clinic from various sections of Maiduguri town and its environs, the disease conditions encountered are likely to be the major ones present in dogs and cats in the area. An analysis of the diseases/conditions encountered showed that helminthosis (20.93%), tick infestation (13.70%) and diarrhoea (9.04) are prevalent among the both species of animals. This is in agreement with reports from other parts of the country (Idowu *et al.*, 1977; Umoh and Asake, 1982). The high prevalence of helminthosis and ectoparasitism (tick infestation) is also in consonance with observations of previous investigators (Esuruoso, 1972; Idowu *et al.*, 1977).

Environmental pollution with pet feces is the most important potential source of infection to human beings, with zoonotic helminthosis from these pets (Arambulo and Steel, 1976). Children in particular are infested as a result of ingestion of contaminated soil, water or fomites

Table 1: Prevalent diseases of dogs and cats in Maiduguri (1995-1997).

Animal Species	Diseases/clinical signs	Years			Total
		1995	1996	1997	
Dogs	Helminthosis	12(13.79)	15(21.74)	30(21.28)	57(19.19)
	Accidental injury	14(16.09)	4(5.80)	36(25.53)	54(18.18)
	Tick infestation	16(18.39)	15(21.74)	14(9.93)	45(15.15)
	Canine distemper	2(2.30)	5(7.25)	18(12.77)	25(8.42)
	Diarrhoea	3(3.45)	9(13.04)	8(5.67)	20(6.73)
	Mange	20(22.99)	2(2.90)	0(0)	22(7.41)
	Rabies	11(12.64)	2(2.90)	2(1.42)	15(5.05)
	Babesiosis	0(0)	0(0)	14(9.93)	14(4.71)
	Dermatitis	0(0)	0(0)	11(7.80)	11(3.70)
	Orchitis	2(2.30)	4(5.80)	4(2.84)	10(3.37)
	Anorexia	0(0)	8(11.59)	0(0)	8(2.69)
	Lice infestation	7(8.05)	0(0)	0(0)	7(2.36)
	Respiratory infection	0(0)	5(7.25)	0(0)	5(1.68)
	Anaemia	0(0)	0(0)	4(2.84)	4(1.35)
Sub-total	87	69	141	297	
Cats	Helminthosis	3(30.00)	3(21.43)	18(27.27)	24(26.67)
	Tick infestation	0(0)	0(0)	8(12.12)	8(8.89)
	Diarrhoea	5(50.00)	3(21.43)	7(10.61)	15(16.67)
	Nutritional deficiencies	0(0)	0(0)	14(21.21)	14(15.56)
	Respiratory infection	0(0)	0(0)	11(16.67)	11(12.12)
	Septicaemia	0(0)	0(0)	4(6.06)	4(4.44)
	Orchitis	0(0)	0(0)	4(6.06)	4(4.44)
	Rectal prolapse	0(0)	3(21.43)	0(0.00)	3(3.33)
	Poisoning	2(20.0)	1(7.14)	0(0.00)	3(3.33)
	Abdominal disorders	0(0)	2(14.28)	0(0.00)	2(2.22)
	Feline panlenkopenia	0(0)	2(14.28)	0(0.00)	2(2.22)
	Sub-total	10	14	66	90
Grand total	97	83	207	387	

Values within parentheses are percentages

(Karhrs *et al.*, 1978). Though environmental pollution and indiscriminate disposal of pets feces is not peculiar to Maiduguri and its environs only, but a national proclivity is worthy of mention because some of the diseases conditions diagnosed are of zoonotic importance. Most of the pets brought to the clinic with the complaint of frequent vomiting were positive for gastrointestinal parasites, and *Ancylostoma* species, *Toxocara* species and coccidia oocysts were the commonest parasites encountered. These parasites are potentially zoonotic, especially *Ancylostoma* and *Toxocara* species. Cutaneous larval migration of *Ancylostoma* produces the cutaneous larvae migrans (creeping eruptions) in man (Karhrs *et al.*, 1978). Migration of *Toxocara* larvae in humans can result in either the visceral larva migrans or ocular larva migrans (Cypess, 1978).

The authors not only in this investigation but also over the years in Maiduguri area have observed the high prevalence of automobile accidents, leading to injury or death of dogs. This is probably a direct result of lack of proper maintenance of pet dogs by their owners and similarly the high number of stray dog's roaming the streets probably reflected a poor husbandry of these pets in the Maiduguri municipality.

It is recommended that pet owners should care more for their pets through proper housing, feeding, prevention of contamination of public places by dog's feces and regular deworming of dogs. The veterinary profession should continue to educate the public on the health hazards posed by indiscriminate disposal of dog feces and on responsible pet ownership.

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