



Common Diseases of Poultry in Kaduna State: Perspective of a Private Clinic

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SUMMARY

Several reports on prevailing poultry diseases across some states in Nigeria have been documented. The common prevailing poultry diseases in Kaduna State were investigated. The records of poultry diseases as presented to and diagnosed at the ECWA Veterinary Clinic, Kaduna during a 10-year (January 1997 and December 2006) period was retrieved and analyzed retrospectively using descriptive statistics. The diagnosis at the clinic was based on clinical and post mortem findings. The results indicate that a total of 5131 poultry disease conditions were presented, diagnosed and treated over the study period. A total of 21 different poultry diseases were diagnosed, the most common being bacterial infections with 2082(40.6%) of all cases, then Coccidiosis 1750(34.1%), Gumboro 465(9.1%), Helminthosis 197(3.8%), Omphilitis 193(%), New castle disease 135(2.6%), stampede 114(2.2%), tumor 65(1.3%), cannibalism 44(0.9%). The less occurring included drug toxicity 23(0.45%) cases, chronic respiratory diseases 20(0.4%), Pullorum 12(0.2%), malnutrition 8(0.16%), lousiness 8(0.16%), Aspergillosis 6(0.12%) and Mareks 2(0.04%). Other, occurring only once totaling 5(0.1%) included aortic rupture, snake bite (on Ostrich), congenital malformation, air sacculitis and traumatic peritonitis. As a single entity, Coccidiosis appeared to be the most occurring disease condition in Kaduna metropolis, followed by Gumboro. Poor management practices and lack of proper vaccination may have been responsible for these findings. Good management practices enhance flock hygiene and

adequate vaccination schedules is key to effective and efficient poultry production in the state and Nigeria at large. Private Veterinary Clinics have pivotal role to play in disease reporting in the country

Keywords: Common poultry diseases, Private Veterinary Clinic, Coccidiosis, Gumboro, Kaduna State

INTRODUCTION

Poultry and poultry products are essential sources of protein supplement to humanity. The poultry population in Nigeria has been estimated to be 104.3 million, comprising of 72.4 million chickens, 11.8 million ducks, 4.7 million guinea fowls, 15.2 million pigeons, and 0.2 millions turkeys (FDLPC, 1992., Ajala *et al*, 2007). The main source of animal protein in Nigeria includes beef, chicken, mutton, eggs, fish and rabbit (Ahmed *et al*, 2011). Of all these, sources, poultry has the highest contribution to animal protein intake of rural dwellers (Ajala *et al*, 2007). However, production for human development is being hampered by prevailing poultry diseases all over the world. In Nigeria, over one hundred and eleven diseases have been classified into list A-E in order of prompt reporting requirement (Abdulkadir, 1989).

Newcastle Disease (ND) and Avian Influenza or Bird Flu, are the two poultry diseases of the 8 member of list A group. The occurrence of these diseases in list A is an indication that they are expected to be reported immediately and promptly to the relevant authorities in order to curb the spread of the diseases. Several reports on prevailing poultry diseases (mostly from government clinics and institutions) across some states in Nigeria have been documented by some researcher (Abdu *et al*, 1985; Garba, 2005; Olabode *et al*, 2008; Garba *et al*, 2010). Despite these reports, there is paucity of reports from private veterinary clinics (in spite of their increasing number) particularly in Kaduna state. This study reports the common diseases of poultry from a private veterinary clinic in Kaduna state. This is with a view to highlight the pivotal role of Private Veterinary Clinics in disease reporting and tracking in Nigeria.

MATERIALS AND METHODS

ECWA Veterinary Clinic is a private clinic located on No. 8A Ali Akilu Road in Northern Kaduna city. Defense Industrial Corporation Kaduna is close to the clinic. It has a work force comprising of 2 Veterinarians, 4 paravets, 4 attendants, 4 salesmen, and 2 security men during the reporting period. The clinic has a laboratory, a postmortem room, treatment room, surgery room, 3 quarantine pens, drugs & feed stores and 3 offices.

The records of poultry diseases as presented to and diagnosed at the ECWA Veterinary Clinic, Kaduna during a 10-year (January 1997 and December 2006) period was retrieved and analyzed retrospectively. The diagnosis at the clinic was based on clinical and post mortem findings. Diseases were grouped as they appeared on the clinic records. Descriptive

statistics was used to analyze data, tables were used and proportions presented in percentages.

RESULTS

The results indicate that a total of 5131 poultry disease conditions were presented, diagnosed and treated over the study period. A total of 21 different poultry diseases were diagnosed, the most common being bacterial infections with 2082(40.6%) of all cases, then Coccidiosis 1750(34.1%), Gumboro 465(9.1%), Helminthosis 197(3.8%), Omphilitis 193(%), New castle disease 135(2.6%), stampede 114(2.2%), tumor 65(1.3%), cannibalism 44(0.9%). The less occurring included drug toxicity 23(0.45%) cases, chronic respiratory diseases 20(0.4%), Pullorum 12(0.2%), malnutrition 8(0.16%), lousiness 8(0.16%), Aspergillosis 6(0.12%) and Mareks 2(0.04%). Other, occurring only once totaling 5(0.1%) included aortic rupture, snake bite (on Ostrich), congenital malformation, air sacculitis and traumatic peritonitis (Table I).

DISCUSSION

The promulgation of veterinary legislations in Nigeria dates back to October, 1917 when the Diseases of Animals Ordinance (now known as Animal Diseases (Control) Decree 10, 1988) was enacted with the aim of backing the veterinary efforts in preventing and control of animal disease outbreaks in the country (Olukole, 2008). The presence of over five thousand cases of poultry handled by this private Veterinary clinic emphasizes the relevance of private clinics in disease reporting in Nigeria. Over 40% of all cases of poultry diagnosed happened to be bacterial infections, this shows that bacterial infections are a threat to poultry

production in Kaduna. However, it should be noted that no specific bacterial species was confirmed by the record as in this report to have cause the various bacterial illnesses. It goes to show that some private veterinary clinics may be handicapped in confirmatory diagnostic tools, hence reporting bacterial infections as a group. In a report from Adamawa state, it was shown that Salmonellosis was the most prevalent bacterial infection with over 40% of all poultry disease cases recorded (Garba *et al*, 2010). In Birnin Kebbi however, fowl pox appeared to be the most prevailing poultry disease and indeed the second most encountered of all animal diseases reported (Garba *et al*, 2011). As a single entity, however, Coccidiosis ranked the most prevalent disease challenging the poultry industry with over 34% of all cases in Kaduna metropolis (Table I).

The probable reason for this high prevalence of Coccidiosis may not be unconnected with the average rainfall and high humidity in Kaduna which probably favours the hatching and development of *Eimeria* ova in the litters. Another probable reason could be due to unavailability of anti-coccidial vaccines amongst the farmers. Gumboro disease appeared to be the 3rd most prevailing poultry disease in this study being 9.1% of all cases. Understanding the devastating effect of Gumboro disease, but presenting lower percentage of occurrence as compare with Coccidiosis and bacterial infection, there could be two reason for this lower occurrence. First, it could be that there is adequate vaccination coverage in the metropolis thus lower rates of outbreaks. Second reason could be that there have been outbreaks of Gumboro occurring but the disease wiped out majority of chickens in the flock and Farmers probably hesitated to report the outbreaks since there are no much poultry

to present to the clinic. Hence the low percentage of Gumboro cases recorded in the clinic. It should be noted however, that Newcastle disease (which is amongst the list A reportable diseases) ranked the sixth prevailing disease with 135(2.6%) of all poultry cases recorded in this report. If reports from private veterinary clinics are collated and transmitted to the central authority (Federal Department of Livestock), comprehensive data base would be achieved in disease reporting and control in Nigeria.

It is the recommendation of this paper that proper poultry house hygiene, regular deworming, vaccinations and reporting of diagnosed cases from private veterinary clinics be employed.

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Table 1: Common Diseases of Poultry in Kaduna State reported and diagnosed at ECWA Veterinary Clinic (1997-2006) Kaduna.

S/ no	Year Disease	199 7	1998	199 9	200 0	200 1	2002	200 3	200 4	200 5	2006	Total (%)
1.	Bacterial Infection	41	38	121	214	236	304	279	256	274	319	2082(40.6)
2.	Coccidiosis	40	69	152	137	217	247	222	217	264	185	1750(34.1)
3.	Gumboro	22	16	35	29	30	43	67	79	52	92	465(9.1)
4.	Helminthosiss	19	14	17	15	19	36	14	26	21	16	197(3.8)
5.	Omphilitis	5	2	16	22	17	13	24	27	59	8	193(3.76)
6.	NCD	3	0	3	11	20	32	30	20	14	2	135(2.6)
7.	Stampede	6	0	1	10	9	11	13	23	18	23	114(2.2)
8.	Tumor	11	8	6	11	0	4	7	4	6	8	65(1.3)
9.	Cannibalism	0	1	2	4	0	1	14	15	7	0	44(0.9)
10.	Drug toxic	1	1	1	1	1	1	1	1	14	1	23(0.45)
11.	CRD	0	1	1	1	1	3	3	3	7	0	20(0.4)
12.	Pullorum	4	2	0	0	0	0	5	1	0	0	12(0.2)
13.	Malnutrition	4	2	1	0	1	0	0	0	0	0	8(0.16)
14.	Lousiness	0	1	1	5	1	0	0	0	0	0	8(0.16)
15.	Aspergillosiss	1	0	2	1	0	0	0	1	1	0	6(0.12)
16.	Mareks	0	0	0	0	2	0	0	0	0	0	2(0.04)
17.	*Others	1 ^a	2 ^{b&c}	1 ^d	0	1 ^e	0	0	0	0	0	5(0.1)
	Total	158	157	360	461	553	697	679	673	737	654	5131(100)

Key:- * = one case each (a=Aortic rupture, b=Snake bite, c=Congenital malformation, d=Air sacculitis, and e=Traumatic peritonitis), NCD= New castle disease, CRD= Chronic respiratory diseases

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