

College of Veterinary Medicine, Duhok University.

PREVALENCE OF VIRAL, BACTERIAL, MANAGEMENT AND PARASITIC POULTRY DISEASES FROM 2002 -2004 IN DUHOK

By

L.T. OMER

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لقمان طيب عمر

الزيارات وكذلك اتصالات المباشرة مع أصحاب الحقول بإضافة إلى الفحوصات ما بعد الموت. تم فحص ٧٥٠ حالة من الطيور النافقة والمريضة القادمة إلى المختبر في مستشفى البيطري في المحافظة والحالات القادمة إلى العيادات الخاصة في السنين ٢٠٠٢ و ٢٠٠٣ وكذلك ٢٠٠٤ أي بمعدل ٢٥٠ حالة في كل سنة. وظهرت ان حالة Omphalitis كانت أعلى في جميع السنين البحث وكانت النتائج (٣٠% و ٣٥ و ٥٠% في ٢٠٠٢ و ٢٠٠٣ و ٢٠٠٤ على التوالي وان حالة التهاب القصبات المزمن في هذه السنوات ٢٠% في ٢٠٠٢ و ٣٠% في ٢٠٠٣ و ٣٢% في ٢٠٠٤. ولكن حالات أخرى مثل نيوكاسيل والتهاب غدة فابريشيا وإصابات طفيلية كانت قليلة.

SUMMARY

The visit, connection and postmortem investigations of poultry diseases were conducted in different farms of Duhok where a total of 750 either dead or sick birds were examined. The incidence of omphalitis (30% in 2002, 35% in 2003 and the 50% in 2004) followed by 20%, 30%, and 32% in the 2002, 2003, and 2004 respectively of birds affected with chronic respiratory disease. Other cases were little in number in both year in all farms like the Newcastle disease and IBD also like the parasitic diseases.

Key words: Poultry, viral, bacterial and parasitic diseases.

INTRODUCTION

The poultry production after the first Gulf wore, in Iraq was seas and the background of more poultry project were destroyed. At that time the poultry production was characterized by the small scale operation, almost all-rural household has some poultry and women are the raisers of these chickens. After implementation of the SCR 986 the veterinary

instruction has revived. The FAO can give some primary material which are necessary for poultry feed like concentrated proteins and soya bean meal, with some other material that had some effect on this project. After that some or most of the projects started in production.

MATERIALS and METHODS

A total number of 750 dead or sick birds of different ages were received from all over the governorates at the special veterinary clinic and the central laboratory in the directory of animal wealth and veterinary in Duhok from the year January, 2002 to December 2004. In most of the cases a diagnosis was made on the basis of the history, clinical signs and PM.

RESULTS

During the last three years, a total of 750 dead or sick birds were examined where 250 in the year 2002, 250 in the year 2003 and 250 in the year 2004. Highest incidence was observed in cases omphalitis (30% in 2002, 35% in 2003 and the 50% is the rate of infection in year 2004). The most important causes were poor incubator and hatchery sanitation, excessive incubator humidity, and chilling or overheating of newly hatched poultry. Navel closure was incomplete, permitting (if present) entry of variety of intestinal bacterial. Poor hatching-egg shell quality permitted bacterial penetration, thus increased omphalitis. Incubation was 8-24 hours and disease course was 6 to 7 days. The clinical signs on chicks were weak and unthrifty, with enlarged abdomens, moist inflamed navels, pasted vents, and lack of body tone. Hatchings huddle, and severely infected birds dead within the first week. Expected mortality is 1 to 3 percent. Incidence and losses varied from hatch to hatch depending on incubator hygiene, and from breeder flock to breeder flock according to shell quality of the hatching eggs. Mortality equals morbidity with this disease. (Dwight Schwartz, 1994)

Chronic respiratory disease was the second about 20%, 30%, and 32% in the 2002, 2003, and 2004 respectively. It is a contagious disease of poultry of all ages, characterized by air sacculitis with yellow caseous (cheesy) exudates caused by *Mycoplasma gallisepticum* (Dwight Schwartz, 1994).

E.coli often infects respiratory tract of birds concurrently infected with various combinations of various viruses and mycoplasmas. Apparently, the damaged respiratory tract becomes extremely

susceptible to invasion by *E. coli* and the resulting disease is commonly called air sac disease or chronic respiratory disease (CRD) (Gross, 1961).

The most characteristic signs of the naturally occurring disease in adult flocks were tracheal rales, nasal discharge, and coughing. Feed consumption was reduced and the birds lost weight. In laying flocks, egg production declined but is usually maintained at a lowered level. (Mohammed *et al.*, 1987).

A case of *keratoconjunctivitis* apparently caused by MG was reported in commercial layer chickens in Japan. Chickens showed swelling of the facial skin and the eyelids, increased lacrimation, congestion of conjunctival vessels and respiratory rales.

The most case of CRD was occurred after hard vaccination which is also the predisposing factor of CRD. (Calnek *et al.*, 1997).

However, the cases of aflatoxicosis in the area occurred specially during the use of bad material in feed formula or the use of bad stored material especially Soya bean meal where 20 cases of aflatoxicosis were recorded in 2002, 21 in 2003 and 30 in 2004.

However, the nutritional deficiency also occurred and the most important time when the wheat was stored for long times, when there was imbalance in the nutrition formula and the broken wheat when used in feed and expired oil or the formula stored for long time specially at summer season. The most cases were vitamins B1, E deficiency with Vitamin E deficiency as a 3 cases in 2003 and Vitamin B1 deficiency 2 in 2002 and 3 in 2004. The vitamin B1 deficiency was characterized by onset is sudden in young chicks but more gradual in mature birds. Anorexia was followed by loss of weight, ruffled feather, leg weakness, and an unsteady gait. Adult chickens often showed a blue comb. The chicken characteristically sits on its flexed legs and draws back the head in a "stargazing" position. Retraction of the head is due to paralysis of the anterior muscles of the neck. (Calnek *et al.*, 1997).

The two important diseases which were more distributed in all the world also we have the problem with them and with hard vaccination programme we can seized the outbreak of them (IBD and ND), and few cases have been recorded 2 and 3 cases in 2002; 3 and 1 cases in 2003; 3 and 2 cases in 2004 for ND and IBD respectively, all these cases occurred during fall of vaccine or the aflatoxine cases. (Calnek *et al.*, 1997).

Finally the parasitic diseases were found very few in numbers except coccidiosis (6 cases) 2.4%, (7 cases) 3% and (4 cases) 1.6 % in the

2002, 2003 and 2004 respectively that occurred in Duhok during these three years. Specially in winter season except two cases occurred in summer in broiler parent and *Ascarida galli* in parent bred have been recorded in three years in parent stock especially at age 15-20 months, and also in neglected case. 2002, (5 cases), in 2003 (12 cases) and 20 cases in 2004.

Only one case of avian pox was recorded in parent stock at age 12 months. Two cases of dermatitis have been recorded one in 2002 and the other in 2004 which helped the cannibalism. Also some other cases need more important diagnostic methods like ELISA and other new diagnostic methods.

REFERENCES

- Dwight Schwartz, D.V.M. (1994): Poultry health Handbook. University of Pynnsylvania 4th ed. PP 61 and 137.*
- Mohammed, H.O.; Crpenter, T.E. and Yamamoto, Y. (1987): Economic impact of Mycoplasma gallisepticum and M. synoviae in commercial layer flocks. Avian Dis. 31: 477-482.*
- Nunoya, T.; Yagihashi, T.; Tajima M. and Nagasawa, Y. (1995): Occurrence of keratoconjunctivitis apparently caused by Mycoplasma gallisepticum in layer chickens. Vet. Pathol 32: 11-18.*
- Soeripto; Whithear, K.G.; Cottwe, G.S. and Harigan, K.E. (1989): Virulence and transmissibility of Mycoplasma gallisepticum. Aust. Vet. J. 66:65-72.*
- Gross, W.B. (1961): The development of air sac disease. Avian Dis.5: 431-439.*
- Calnek, B.W.; John, B.H.; Beard, C.W.; Mcdougald, L.R. and Salf, Y.M. (1997): Diseases of poultry 10th edition. pp 56: 134-197.*