## **Advanced Pathology and Treatment of Diseases of Poultry**

With Special Reference to Etiology, Signs, Pathology and Management

'Advanced pathology and treatment of diseases of poultry' has been prepared to cater to the needs of students of the veterinary colleges, diagnosticians engaged in disease investigation and practicing veterinarians in different states of this country. The prevalent in different agricultural universities have been kept in view in preparing the manuscript of this

Sincere efforts have been made to insert all nent pathological changes in different poultry diseases with the object of making this book of high value to the students at both undergraduate and postgraduate levels in the veterinary colleges. More and more stress has been laid on the information in relation to signs, gross and microscopic lesions of avian diseases prevalent in poultry flock for their quick diagnoses.



With Special Reference to Etiology, Signs, **Pathology and Management** 

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## Contents

15	Poultry Diseases 1
2.	Ranikhet Disease (Newcastle Disease) 19
3.	Infectious Bursal Disease (Gumbro Disease) 29
4.	Marek's Disease (MD) 33
5.	Leucosis/Sarcoma39
5.	Fowl Pox
7.	Laryngotracheitis (Infectious laryngotracheitis) 51
3.	Avian Encephalomyelitis (Epidemic Tremor) 55
9.	Duck Hepatitis (DH)57
10.	Respiratory Diseases
11.	Fowl Typhoid 63
12.	Avian Tuberculosis (AT)65
13.	Bacillary White Diarrhoea (BWD) 69
14.	Fowl Cholera (Avian Pasteurellosis) 73
15.	Coligranuloma (Hjärre's disease)
16.	Chlamydiosis(ornithosis)
17.	Spirochaetosis 85
18.	Coccidiosis
19.	Parasitic Diseases caused by Internal Parasites 93
20.	Parasitic Diseases caused by External Parasites 103
21.	Deficiencies of Minerals and Vitamins 109
22.	Diagnosis of Poultry Diseases
23.	Infectious Bronchitis
24.	Influenza (Avian Influenza or Bird Flu) 137
25.	Favus (Tinea) 143
26.	Quail Disease (Ulcerative enteritis)

27.	Avian Pseudotuberculosis (AP) 147
28.	Mycoplasma Gallisepticum (MG) Infection (Chronic Respiratory Disease)
29,	Aspergillosis (Brooder Pneumonia) 151
30.	Thrush (Candidiasis) 155
31	Avian Arizonosis (AA) 157
32.	Rupture of the Gastrocnemius Tendon 159
33.	Heat Prostration 161
34.	Dehydration 163
35.	Gangrenous Dermatitis (GD) 165
36.	Botulism (Limberneck) 167
37.	Coryza (Infectious Coryza) 169
38.	Paratyphoid (PT) Infections 173
39.	Mycotoxicosis
40.	Miscellaneous Conditions/Diseases
	ENDIX
INID	EX21
	L/\



## **Poultry Diseases**

The cellular reactions of the birds to the various kinds of noxious agents like bacteria, viruses, protozoa and mineral deprivations are almost similar to those in the mammalian tissues. There may be some minor differences due to species or other biological factors e.g. calcification is not a feature of tuberculous lesions in fowls. Acute exudative inflammatory reactions are noticed in Newcastle disease, infectious laryngotracheitis, coryza and coccidiosis but the chronic granulomatous lesions are the marked changes in aspergillosis, tuberculosis and coligranuloma. Certain diseases are noticed in very acute form in some age groups of birds as exemplified in Gumboro disease (chickens, aged 3-6 weeks) and Marek's disease (chickens aged 3-9 weeks). Degenerative (necrotic) changes in the lymphoid cells of cloacal bursa in infectious bursal disease (IBD), haemorrhagic-necrotic intestinal lesions in RD (Ranikhet disease) and coagulation necrosis, heterophil accumulation, hyperplasia of synovial cells, lymphocytes, macrophages and plasma cells in viral arthritis in birds are important features of the disease processes.

Diseases in the poultry result from impairment of body functions. Proper sanitation is of utmost importance in prevention and control of poultry diseases. Stresses of different kinds (chills, overexhaustion and starvation etc.) render the chickens susceptible to diseases. The factors controlling the occurrence of diseases are as under:

- [1] Number of birds
- [2] Types of birds
- [3] Virulence (the ability to produce diseases) of the pathogens
- [4] Route of entry