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لم ترد بالأصل



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B I Y V E A

**STUDIES ON THE EFFICACY OF COMBINED
IMMUNOSTIMULANT-ANTIBIOTIC
THERAPY AGAINST EXPERIMENTAL
MYCOPLASMA GALLISEPTICUM
INFECTION
IN CHICKENS**

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**For M.V.Sc.
(Pharmacology)**

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A decorative border on the left side of the page, featuring a vertical stem with various leaves and flowers. The flowers include some with multiple petals and others that are more star-shaped or daisy-like. The leaves are simple, oval-shaped with small veins.

*To my husband
and
my brothers*

A decorative border on the right side of the page, mirroring the left side. It features a vertical stem with various leaves and flowers, including some with multiple petals and others that are more star-shaped or daisy-like. The leaves are simple, oval-shaped with small veins.

CONTENTS



	Page
INTRODUCTION	1
1. REVIEW OF LITERATURE	3
1.1. Avian mycoplasmosis.....	3
1.1.1. Haematological changes associated with avian mycoplasmosis.....	5
1.1.2. Changes in serum proteins associated with avian mycoplasmosis.....	6
1.2. The chemotherapeutic value of lincomycin and spectinomycin.....	7
1.2.1. Efficiency of lincomycin and specti- nomycin against mycoplasmosis.....	8
1.2.2. Efficiency of lincomycin and specti- nomycin against <u>Cl. perfringens</u> necro- tic enteritis.....	10
1.2.3. Other chemotherapeutic properties of lincomycin and spectinomycin.....	11
1.3. Chemotherapeutic actions and possible uses of josamycin.....	12
1.4. The action, therapeutic value and possible uses of non-specific immunostimulant Corynebacterium ultralysate.....	14
2. MATERIALS AND METHODS	17
2.1. Drugs and their administration.....	17
2.1.1. Josamycin (Alplucine).....	17
2.1.2. Lincomycin-spectinomycin (Lincospec- tin).....	17
2.1.3. <u>Corynebacterium cutis</u> ultralysate (Ultracorn).....	17
2.2. Chicks.....	18
2.3. <u>Mycoplasma gallisepticum</u> strain.....	18
2.4. Inoculation with <u>M. gallisepticum</u>	18
2.5. Bacteriological media.....	19
2.6. Mycoplasma antigens for serological tests.....	19
2.6.1. Stained antigens for slide aggluti- nation test.....	19
2.6.2. Antigen for haemagglutination Inhibi- tion test.....	20

II

	Page
2.7. Blood sampling.....	20
2.8. Assessment of the severity of air sacculitis lesions.....	20
2.9. Isolation of <u>M. gallisepticum</u> cells in organs.....	21
2.10. Slide agglutination test.....	21
2.11. Haemagglutination inhibition tests.....	22
2.12. Haematological examination.....	22
2.13. Experimental design.....	22
3. RESULTS.....	28
3.1. Effect of different treatments on body weight.....	26
3.2. Effect of different treatments on the incidence and severity of air sacculitis	29
3.3. Effect of different treatments on the rate of isolation of <u>M. gallisepticum</u> from respiratory organs.....	34
3.4. Effect of different treatments on Haemagglutination inhibition titre.....	37
3.5. Effect of different treatments on slide agglutination test.....	40
3.6. Effect of different treatments on weight of bursa of Fabricius and spleen in chickens given different treatments.....	43
3.7. Effect of different treatments of total and differential leucocytic counts.....	48
4. DISCUSSION.....	53
5. SUMMARY.....	57
6. REFERENCES.....	59
ARABIC SUMMARY.	

بسم الله الرحمن الرحيم

" قرار لجنة الحكم والمناقشة "

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INTRODUCTION

INTRODUCTION

Mycoplasma gallisepticum remains to be a major aetiological factor in the pathogenesis of respiratory disease of chickens. Economic losses from Mycoplasma gallisepticum infection in broilers arises from mortality, reduced weight gain and food conversion and poor carcass quality which often lead to condemnation (Yoder, 1978). Chemotherapy of mycoplasmosis presents a special problem. Mycoplasmal cell does not have a cell wall which renders them non susceptible to the action of Penicillins (Razin and Tully, 1983), moreover, many of the mycoplasmal organisms are localized intracellularly (Razin and Tully, 1983) which makes them non sensitive to chemotherapeutic agents which do not readily penetrate intracellularly. Josamycin would be particularly suited for use in mycoplasmosis because the antibiotic is known to become concentrated intracellularly in phagocytic cells to reach concentration 10-20 times higher than those in intercellular fluids (Wildfeuer et al., 1986), a property that would possibly augment the expected lethal effect of josamycin against intracellular mycoplasma. Also, josamycin reaches high concentration in lung tissue (Kuriaki et al., 1969 and Wildfeuer and Lemme, 1985) which favour its used in pulmonary infections. Unfortunately, little is known about the efficacy of josamycin in the treatments of pulmonary

diseases of animals and poultry. In this present work, the efficiency of josamycin and combined lincomycin-spectinomycin therapy in the treatment of experimental mycoplasma infection in chickens were evaluated. Because many antibiotics are known to suppress the immune system of the treated host, therefore, the effect of a non-specific immunostimulant (Corynebacterium ultralysate) on the success of chemotherapy was also evaluated. Criteria used in this study to evaluate efficiency of chemotherapy were:

1. Pathologically: morbidity, mortality and assessment of the severity of pathological lesions.
2. Microbiologically: cultural examination of remaining organisms in organs after chemotherapy.
3. Immunologically: leucocytic count, slide agglutination and haemagglutination inhibition tests.

REVIEW OF LITERATURE