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Faculty of Science
Botany Department

PHYSIOLOGICAL AND BIOCHEMICAL STUDIES ON CONJUNCTIVITIS CAUSED BY MICROORGANISMS

THESIS
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In "Microbiology"

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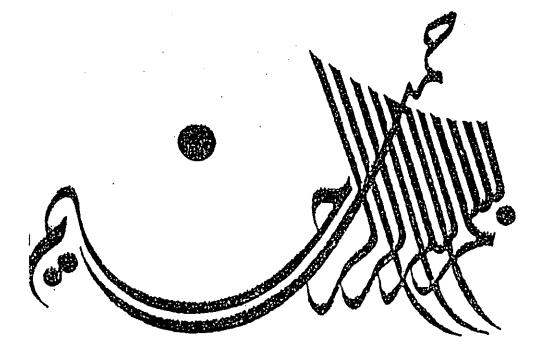
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Sherin M. Ashraf

Physiological and Biochemical Studies on Conjunctivitis Caused by Microorganisms

Abstract

In this work, we studied 214 microbial conjunctivitis cases throughout one year from April 1998 to May 1999, in four seasons by different age groups and sex. The protocol of the work included physiological and biochemical analysis on the isolated microorganisms.

The isolated microorganisms (bacteria, fungi and chlamydia) from 214 cases were compared with 50 normal control and identified. The tear IgA and the tear lysozyme in both microbial conjunctivitis cases and control were studied. Also enzymes activities and sensitivity test for all isolated microorganisms towards some antibiotics were tried.

Staphylococcus and Streptococcus species were the most predominant bacterial isolates where Aspergillus and Penicilium species were the most common fungal isolates. Chlamydia trachomatis was isolated as a causative agent of trachoma and paratrachoma chlamydia (PTDs).

Females were more susceptible to infection than males, similarly adult group 30-50, and children groups. The reached results showed that spring and summer seasons had the highly infectious rate throughout the year. Also antibacterial and antifungal sensitivity test were done for all isolates, where amikacin, ciprofloxcin, gentamycin and ofloxacin showed the highest inhibitory effect against all tested bacteria. And clotrimazole (1%) and ketoconazole (2%) were effective against all tested fungal and yeast species.

The rate of tear IgA were affected by microbial infection than tear lysozyme. Finally most of the isolated bacterial and fungal species have the ability to produce protease and lipase enzymes.

Key Words:- Conjunctivitis, bacteria, fungi and yeast, chlamydia. Tear IgA and lysozyme. Enzymes. Protease, lipase. Antibacterial, Antifungal.

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INTRODUCTION and AIM OF THE WORK