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Cairo University
 Faculty of Veterinary Medicine
 Department of Microbiology

Name	Zeinab Saad Abd El Razek Mohammed
Date of birth	15/09/1983
Nationality	Egyptian
Degree	Master degree
Specialization	Microbiology (Bacteriology - immunology - Mycology)
Title of thesis	Bacteriological Studies on some bacteria causing omphalitis in baby chicks.
Under supervision of	Prof. Dr. Nashwa Abd El-Salam Ezzeldeen Prof. of Microbiology, Department of Microbiology Faculty of Veterinary Medicine, Cairo University
	Prof. Dr. Soad Abd El-Aziz Abd El-Wanis Chief Researcher of poultry diseases Reference Laboratory for Veterinary Quality Control on Poultry Production, Animal Health Research Institute
	Dr. Mahmoud El Hariri Assistant prof. of microbiology Faculty of veterinary medicine. Cairo university

Abstract

A study was conducted on 200 samples of one day old chicks obtained from chicken hatchlings to isolate and identify bacteria associated with yolk sac infection (Omphalitis) and to determine antimicrobial sensitivity pattern of the predominant bacterial pathogens. A total of 160 bacterial isolates were isolated and identified using biochemical tests and molecular confirmation. The bacterial strains tested for their susceptibility to 10 antimicrobial agents. The highest recovery rate was for *Escherichia coli* 120 (60%) followed by *Pseudomonas aeruginosa* 25 (12.5%). *Staphylococcus aureus* and *Salmonella* were 10 (5%) & 5 (2.5%), respectively. The antimicrobial sensitivity patterns were detected for all bacterial genera; the highest resistance patterns were exhibited by *P. aeruginosa* followed by *Salmonella* spp. then *E. coli* and finally *S. aureus*.

The existence of multi-drug resistance bacteria isolates associated with yolk sac infection suggests that more emphasis be given towards preventing omphalitis in chicks through improvements of sanitary measures than to consider control options through the use of antimicrobials.

Keywords: (Omphalitis- Yolk sac -*E. coli* - Bacterial Causes – Baby chicks)