Faculty of Veterinary Medicine
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Group (A) streptococci: Studies of isolates from bovine udder milk and man and associated risks.

Thesis presented by

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Group (A) streptococci: Studies of isolates from bovine, udder, milk and man and associated risks

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Title of Thesis: Group (A) streptococci*:* Studies of isolates from bovine, udder, milk and man and associated risks

Abstract

" Group (A) streptococci*:* Studies of isolates from bovine, udder, milk and man and associated risks"Mohamed Darwish Mohammed. Cairo Univ.Fac. Vet. Med. Thesis; M.V.Sc.; Bacteriology Immunology and Mycology,2016

Streptococcus pyogenes (Group A Streptocci-GAS) is one of the most frequent pathogens of humans. It is estimated that between 5-15% of normal individuals harbor the bacterium, usually in the respiratory tract, without signs of disease. As normal flora, *S. pyogenes* can infect when defenses are compromised or when the organisms are able to penetrate the constitutive defenses. In the last century, infections by *S. pyogenes* claimed many lives especially since the organism was the most important cause of puerperal fever, Scarlet fever, streptococcal pharyngitis (strep throat). Patients may also develop immune-mediated post-streptococcal sequelae, such as acute rheumatic fever and acute glomerulonephritis, following acute infections caused by *Streptococcus pyogenes.* 440 quarter milk samples(QMS) from apparently healthy animals (368 from cows72 and from buffaloes), 72 quarter milk samples from clinically infected animals (60from cows and 12 from buffaloes). *Strept. pyogenes* was isolated in percentage of (17%) from examined quarter milk samples. By applying Antistreptolysin o titre (A.S.O.T) and Carbohydrate like reacting protein (C.R.P) on Blood samples collected from human cases found to have +ve ß-hemolytic isolates. Out of 35 samples 25 (71.43%) founded to be positive to A.S.O.T and 28(80%) founded to be positive to C.R.P. (100%) of the examined *Strept. pyogenes* isolates from bovine milk and human cases were sensitive to bacitracin and Penicillin G. Only14 *Strept. pyogenes* strains were selected and subjected for identification using PCR. It was clear from the obtained results that only five (35, 71%) strains were confirmed to be *Strept pyogenes*. 35 strains isolated from throat swab samples proved to be *Strept. pyogenes* on using ordinary conventional methods for identification. Only 10 *Strept. pyogenes* strains were selected and subjected for identification using PCR. It was clear from the obtained results that only five (50.00%) strains were confirmed to be *Strept pyogenes*.

DEDICATED TO

MY FATHER AND MY MOTHER

MY WIFE
(ASMA)

MY SISTERS
(SAFA, ASMA, ESSRA)

MY CHILDREN
(YAMEN AND TALEEN)

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