BLOOD STREAM INFECTION AND ANTIBIOGRAM AMONG PATIENTS REFERRED TO BAHIR DAR REGIONAL HEALTH RESEARCH LABORATORY CENTER ETHIOPIA: A RETROSPECTIVE STUDY

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Background: Blood stream infection (BSI) varies from self-limiting infections to life threatening sepsis. This study was conducted to determine bacterial agents causing BSI and their antimicrobial resistance profiles.

Methods: A retrospective study was conducted on febrile patients suspected for blood stream infections from March 2013 to January 2015 at Bahir Dar Regional Health Research Laboratory Center (BRHRL), Ethiopia. According to standard operational procedure for blood culture, venous blood samples were collected aseptically and processed with conventional blood culture. Antimicrobial susceptibility tests were performed using Kirby-Bauer disc diffusion methods.

Results: From 561 blood specimens, aerobic bacterial growth was observed on 220 (39.2%) samples. Age groups were statistically associated with BSI (P=0.001). Gram negative isolates constituted 115 (52.3%). *Staphylococcus aureus* with 22.7% was the predominant isolates followed by Coagulase-negative *Staphylococcus* (15.9%), *Klebsiella pneumoniae* (15.9%), *Escherichia coli* (8.6%), *Pseudomonas aeruginosa* (6.8%) and *Acinetobacter* species (5.9%). The overall range of drug resistance for Gram positive bacteria were 7% to 61% and for Gram negatives 6.9% to 82.6%. Among the Gram positive bacteria, high resistance levels were observed against Penicillin (61%) and Oxacillin (52.9%). The Gram negative organisms showed 66 to 82.6% resistance to Ampicillin, Ceftriaxone and Trimethoprim-sulfamethoxazole.

Conclusions: The present study revealed that blood stream infection linked with high levels of drug resistance is a significant health problem. Hence, early identification of bacterial pathogens and determining their antibiotic susceptibility could play key role for appropriate treatment of blood stream infection.

Biography

Derese Hailu has completed his BS degree in Addis Ababa University and Second-degree MS degree in Medical Microbiology at University of Gondar. He has nine years of work experience. From 2016-2017, he was working as Laboratory Directorate Director in Amhara Public Health Institute (APHI). Currently, he is working as Researcher in APHI. He has taken different trainings and short courses. Especially, he has taken TOT trainings provided by American Society for Microbiology (ASM).

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