52% and limb swelling in 51.4%. Pallor indicative of anaemia is seen in all (100%) of patients, tachycardia seen in 91% and hepatomegaly detected in 63.8%. Growth failure observed in 51.45%. All study population had low haemoglobin, ranging from 2.9 - 9.5 gm/dl with a mean 7.01 gm/dl (±1.1 SD), Reticulocytosis observed in 18.8% and Leucocytosis in 85.5%. Ninety percent recovered from their acute episodes, (5%) were referred to other hospital, only three patients (2.2%) leaved against medical advice, two patients (1.4%) discharged home with complications, there were two deaths (1.4%).

Conclusions The study exemplifies different patterns of presentations in patients with Sickle cell disease with variable percentage. It is suggested to manage considering that patterns and applying the multi-disciplinary approach.

**MICROBIAL PATTERNS AND ANTIBIOTIC SUSCEPTIBILITY IN BLOOD CULTURE ISOLATES OF SEPTICEMIA SUSPECTED CHILDREN IN THE PEDIATRICS WARD OF A TERTIARY CARE HOSPITAL**

Muhammad Sarfraz Khan, Ansian Kareem, Areeb Khalid, Saima Rauf, Muhammad Shahenyar Bashir, Kiran Fatima. Pakistan

Background Septicemia is considered as the second most common cause of death in non-coronary intensive care units (ICU) and tenth overall cause of death in countries with high per capita income. Early detection and determination of antimicrobial susceptibility patterns have been shown to reduce the morbidity and mortality associated with bloodstream infections.

Objectives This study aims to determine microbial patterns and antibiotic susceptibility to alert clinicians to the emerging pathogens that may pose a threat to the community, especially in children.

Methods This retrospective cross-sectional study was conducted in the Department of Pathology, Holy Family Hospital, Rawalpindi, Pakistan, from July 2019 to December 2019. The culture was performed on blood and MacConkey agar. Microbes were identified under a microscope by observing their morphological characteristics after gram staining and applying biochemical tests. Antibiotic sensitivity test was carried out using standard aseptic methods. Bacterial isolates and their susceptibility patterns were represented using frequencies and percentage charts.

Results Out of 423 blood cultures, growth was recorded in 92 (21.75%) of the cultures with female to male ratio 2:1:1. The gram-positive bacteria accounted for 43.48% (n=40) whereas gram-negative bacteria covered the majority 54.36% (n=50). Among isolates, Staphylococcus aureus (42.39%) was the most common, followed by Acinetobacter spp. (17.39%) and Pseudomonas aeruginosa (14.13%). Acinetobacter spp. showed 0% susceptibility to amikacin and cefotaxime. All the isolates were 100% resistant to amoxicillin-clavulanic acid. S. aureus showed lower sensitivity for cefazidime (0%), clindamycin (66.67%), ciprofloxacin (0%), clarithromycin (11.76%) and ceftriaxone (0%). Tigecycline showed 100% sensitivity for all isolates tested.

Conclusions Gram-negative bacteria form the majority of isolates in our set up with Acinetobacter most common species among them. The resistance against cephalosporins, penicillin, and fluoroquinolones shown by Acinetobacter, Pseudomonas, Salmonella, and Klebsiella is of grave concern. Among Gram-positive bacteria, S. aureus has established resistance against multiple drugs. Limited and objective use of antibiotic therapy is a much-needed strategy under new guidelines.