Infectious Microbial Patterns and Associated Morbidity in Febrile Neutropenic Pediatric Oncology Patients at a Tertiary Care Hospital in Pakistan.

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Introduction

Febrile Neutropenia is the well-known life-threatening complication of oncological therapy and is an oncologic emergency. Causative organism are different in different areas so it is really important to identify causative organisms its outcome, in local settings and then to establish local guidelines.

Aim

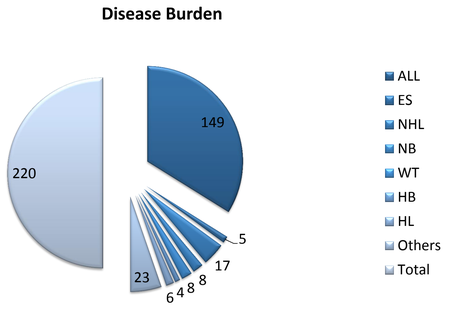
To know the infectious etiology and its oitcome in local settings

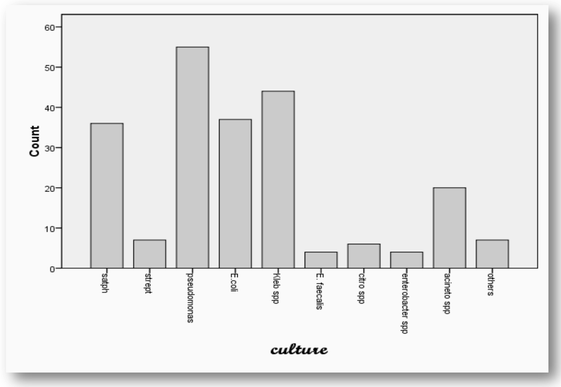
Methods

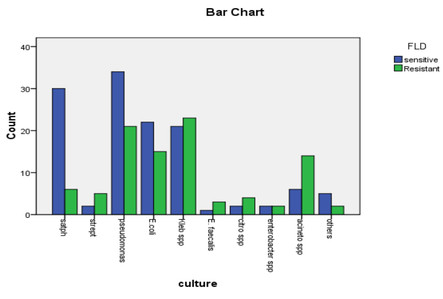
This prospective study was conducted from July 2023 to June 2024 at The Children's Hospital and University of Child Health Sciences Lahore Pakistan, in the department of Pediatric hematology oncology and bone marrow Transplant. All patients with diagnosis of febrile neutropenia and having positive cultures were included. Empirical antibiotics were started as per local guidelines.

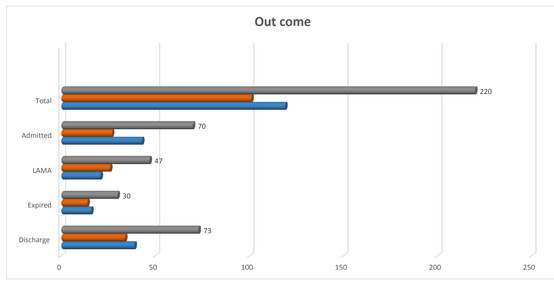
Results

Among 376 febrile neutropenic patients 220 samples turned to be positive. Male to female ratio was 1.2:1. Acute lymphoblastic Leukemia was most common disease followed by Non Hodgkin Lymphoma. Among negative organism *Pseudomonas aeruginosa* was the most common (25%) followed by *klebsiella pneumonia* 20% .Among Gram positive organisms *Staphylococcus* species was the mostly found in 36 patients (16.4%) where *streptococcus* species was isolated in 7 patients (3.2%)
125 cultures were sensitive to first line (56.8%), 101 (45.9%) sensitive to second line 119 (54.1%) organism were resistant to second line .115 organisms (52.3%) were sensitive to third line and almost 90% gram positive organisms were sensitive to third line .33 samples were not sensitive to any antibiotic among all these.73 patients (33.2%) discharged within 48 hrs of admission. 47 patients (21.4%) left against medical advice and 30 patients (13.6%) unfortunately expired.









Summary

Infectious etiology and its outcome in our center is a bit different from western world so it is suggested to establish local guidelines with respect to sensitivity patterns

References

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