THE KOREAN SOCIETY OF NEPHROLOGY
APCN & KSN 2024
June 13(Thu) - 16(Sun), 2024 Coex, Seoul, Korea
Promoting Sustainable Kidney Health: The Asia-Pacific and Beyond

Abstract Submission No.: A-0446

End-Stage Renal Disease and Pneumonia: Microbiota Profiles and the Correlation with Length of Stay and Mortality Rates at Moewardi Hospital, Indonesia

I Wayan Rendi Awendika, Aryo Suseno, Santy Ayu Puspita Perdhana
Department of Internal Medicine, Sebelas Maret University, Indonesia

Objectives : End-Stage Renal Disease (ESRD) has a 27.2% prevalence of respiratory complications, with 25% of cases attributed to pneumonia. This condition significantly raises the risk of prolonged hospitalization and in-hospital mortality. This study explores the microbiota causing pneumonia in ESRD patients and its correlation with Length of Stay (LOS) and mortality rates.
Methods : A cohort retrospective study was conducted on all the hospital records of ESRD patients with pneumonia admitted to the Nephrology Department of Moewardi Hospital in Indonesia between July and December 2023. ANOVA and Chi-Square tests were conducted to analyze the correlation between the type of bacteria, LOS, and mortality rate.
Results : Of the 46 ESRD patients with pneumonia, 46% are aged 51-60, consisting of 52.2% male and 47.8% female. The predominant organisms causing pneumonia were Klebsiella pneumoniae ss. Pneumoniae, identified in 23.9% (11 cases), followed by Pseudomonas aeruginosa at 17.4% (8 cases), Escherichia coli at 15.2% (7 cases), and some other bacteria with varying percentages. The descriptive analysis results for LOS based on the type of bacteria revealed significant variation, with an average LOS of 7.35 days. The patients infected with Pseudomonas aeruginosa showed the longest average LOS at 11.13 days, followed by those with Klebsiella pneumoniae ss. pneumoniae with an average of 6.55 days, although these differences were not statistically significant ($p = 0.227$). Pseudomonas aeruginosa also showed a higher percentage of mortality cases (10.9%) compared to other bacteria, although the difference was not statistically significant ($p = 0.193$).
Conclusions : Pseudomonas aeruginosa was identified as the leading factor contributing to extended LOS and mortality in ESRD patients with pneumonia. However, this study reveal no significant correlation between bacterial type and LOS or mortality.

Figure 1 Microbiota Profile Causing Pneumonia in ESRD Patients.png

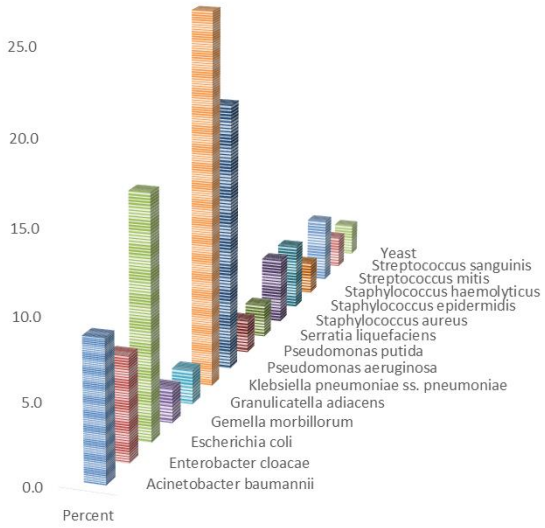

Figure 1 Microbiota Profile Causing Pneumonia in ESRD Patients.png