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AC065

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

PATTERN OF NASOPHARYNGEAL BACTERIAL COLONIZATION AND ITS DETERMINANTS IN NIGERIANS WITH HEART FAILURE.

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Background: The morbidity and mortality rates associated with heart failure(HF) remain strikingly high, largely due to acute decompensation events, many of which are related to infective processes, including pneumonia. This study is therefore aimed at documenting the pattern of bacterial colonization in the nasopharynx of stable chronic HF subjects in Ogbomoso, Nigeria

Methods: A total of 140 chronic HF subjects and 100 control subjects were recruited. The nasopharyngeal swab was taken. Bacterial colonies were identified based on gram staining, colony morphology, and a series of standard biochemical tests, including catalase, coagulase, optochin, indole, urease, citrate utilization, and oxidase reactions

Results: Coagulase negative Staphylococcus (CoNS) was more prevalent among HF patients (52.1%), whereas Staphylococcus aureus was more common among the controls (44.0%). Klebsiella pneumoniae and Bacillus species were also isolated more frequently in the case group. Socio-demographic and clinical variables such as age, gender, ethnicity, religion, marital status, educational level, and occupation were not significantly associated with nasopharyngeal bacterial carriage in both bivariable and multivariable analyses. Among the lifestyle factors assessed, previous alcohol intake showed a statistically significant association with nasopharyngeal bacterial carriage in the adjusted model (AOR = 0.23; 95% CI: 0.06–0.94; p = 0.041).

Conclusion: The relatively high prevalence of nasopharyngeal bacterial carriage (82.1%) compared to 75.0% among controls suggests a change in the upper respiratory tract (URT) in patients with chronic heart failure. Knowledge of these trends may inform immunization techniques to reduce invasive bacterial-related acute decompensated episodes.

Keywords: nasopharyngeal isolate, heart failure, Nigerian