

An Epidemiological Study of Bacterial Isolates from Oral Cavity of Medical Students and its Antimicrobial Resistance Pattern

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Abstract

Objective: Isolation and identification of bacteria from the oral cavity of Medical students and teaching staff and determination of antibiotic sensitivity test of the pathogenic isolates.

Methods: From October 2016 to March 2017, a total of 29 specimens were collected from oral cavity. The specimens were taken from medical students. Different media was used for the isolation of the bacterial isolates. Microscopy and biochemical tests were used for identification of bacteria. Kirby Bauer Disc Diffusion method was used for antibiotic sensitivity test of isolated bacteria. **Results:** Mono microbial was seen in 41.4% (12/29) and poly microbial was in 48.6% (17/29). In 29 specimens, 46 bacterial isolates were found. Streptococcus species was isolated in 21.7% of bacterial isolates. Pseudomonas species and Staphylococcus aureus each isolated in 19.6% of bacterial isolates. Enterococcus faecium and Citrobacter species each isolated in 10.9% of bacterial isolates. The isolation of other organisms was less than 10%. Gram positive isolates was found in 60.9% and Gram negative in 39.1%. Of all the isolates, 97.8% were resistant to Amoxicillin, 84.8% were resistant to Amoxicillin-Clavulanate, 28.3% were resistant to Tetracycline and 8.7% were resistant to Ciprofloxacin. **Conclusion:** In the present study, we were able to isolate and identify several oral bacterial strains which belonged to the species Streptococcus species, Pseudomonas species and Staphylococcus aureus with varying antibiotic resistance patterns.