

Respiratory pathogens in dental plaque of hospitalized patients with chronic lung diseases.

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Bacterial cultivation studies have shown that dental plaque is a reservoir for respiratory pathogens in intensive care unit patients and in elderly who are debilitated, hospitalized or in a nursing home, placing them at risk of bacterial pneumonia. No information is available, however, concerning dental plaque as a reservoir of putative respiratory pathogens in hospitalized patients with chronic lung diseases. Supragingival plaque colonization of 34 hospitalized chronic lung-diseased Romanian citizens, excluding those with tuberculosis and less than 20 teeth, was therefore assessed by checkerboard DNA-DNA hybridization using a selected panel of whole genomic DNA probes produced from eight respiratory pathogens and eight oral pathogens. Thirty-one lung-healthy dental outpatients served as reference population. Respiratory pathogens were detected in plaque from 29 of the 34 (85.3%) hospitalized patients and 12 of the 31 (38.7%) reference population subjects. *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Acinetobacter baumannii*, and *Enterobacter cloacae* occurred significantly ($p < 0.05$) more frequent among the hospitalized patients. Hospitalized chronic lung-diseased patients harbored in their supragingival plaque samples bacteria known to cause nosocomial pneumonia significantly ($p < 0.001$) more frequent than lung-healthy dental outpatients. Our results indicate that dental plaque in patients with chronic lung diseases often serves as a reservoir of bacteria known to cause nosocomial pneumonia in susceptible individuals.