

Title: ANTIMICROBIAL SUSCEPTIBILITY OF STAPHYLOCOCCUS ISOLATED FROM SUBGINGIVAL BIOFILM OF INDIVIDUALS WITH DIFFERENT PERIODONTAL CONDITIONS

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This study evaluated the frequency of *Staphylococcus* spp. in the subgingival biofilm of 253 individuals with different periodontal conditions (healthy, n=86; gingivitis, n=41; chronic periodontitis, n=84 and aggressive periodontitis, n=42). Samples of subgingival biofilm were obtained, plated onto mannitol salt agar and incubated for 48h at 37°C. Antimicrobial susceptibility of bacterial isolates were evaluated for amoxicillin, amoxicillin clavulanate, vancomycin, minocycline, doxycycline, ciprofloxacin, azithromycin, clindamycin, cefoxitin, cloramfenicol, gentamicin, linezolid, moxifloxacin, penicillin, rifampicin and sulfamethoxazole, using disk diffusion test according to CLSI (2014). In general, *Staphylococcus* spp. were isolated in 68% of all samples evaluated. 83% were coagulase-negative staphylococci and 17% were *S. aureus*. Analyzing each one of the clinical groups a significant higher prevalence of *Staphylococcus* ($p < 0,0001$) was observed in patients with aggressive periodontitis (92,9%) comparing with patients with gingivitis (73%), chronic periodontitis (65,1%) and healthy (59,3%). High levels of resistance were observed for beta lactams (21-62%) and azithromycin (29%), while an intermediate resistance was detected for clindamycin (16%) e doxycycline (11%). The high prevalence resistant isolates observed in subgingival biofilm of patients with periodontitis can have relevant clinical implications in the treatment with antibiotics.

Key-words: *Staphylococcus* spp, antimicrobial susceptibility, subgingival biofilm, periodontitis

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