

***Actinobacillus actinomycescomitans* isolated from young Chinese adults with aggressive periodontitis**

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Objectives: To characterize *A. actinomycescomitans* isolates from young Chinese aggressive periodontitis patients. Methods: Subgingival plaque samples (2/subject) were collected from untreated diseased subjects < 25 yr (n = 9, 21.1 ± 1.6 yr) and age- and sex-matched periodontitis-free controls (n = 47, 22.0 ± 1.1 yr). Selective (TSBV agar) and anaerobic culture were used. The serotype, leukotoxin gene (*ltx*) operon promoter, and the cytolethal distending toxin (*cdt*) genes complex of the *A. actinomycescomitans* isolates were studied. Results: Diseased subjects had significantly higher full-mouth bleeding scores ($p=0.002$) and total viable counts (7.2×10^6 vs 2.1×10^5 c.f.u., $p<0.005$). *A. actinomycescomitans* was isolated from 67%/56% or 6%/4% of diseased or control subjects/sites, respectively ($p<0.001$). The proportion of *A. actinomycescomitans* isolatable from both diseased and periodontitis-free was low (0.7% vs 0.1%, $p<0.02$). Among the 10 disease and 4 control *A. actinomycescomitans* isolates characterized, 8 were serotype c, 3 serotype f, 2 serotype a and 1 serotype b, and all possessed 652-like *ltx* gene promoter; furthermore all but one from diseased patients had intact *cdtABC* genes. Conclusion: This study confirmed increased prevalence and quantity of *A. actinomycescomitans* in aggressive periodontitis Chinese patients. The *ltx* promoter and *cdt* characteristics of the *A. actinomycescomitans* isolates, however, were similar among the diseased and control groups.

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