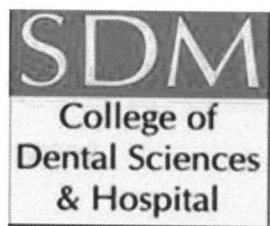


**PROFILING OF *Aggregatibacter actinomycetemcomitans*
SEROTYPES b AND c AND THE GENOTYPES IN
PERIODONTAL HEALTH AND DISEASE:
A CLINICO-MICROBIOLOGICAL STUDY.**



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ABSTRACT

Background and objectives: *A. actinomycetemcomitans* is prevalent in periodontitis but is found in some periodontally healthy individuals as well. Certain serotypes of the organism have shown to determine severity of the disease. The distribution of serotype and genotype is affected by geographic and ethnic variation. Therefore, the present study was aimed to detect serotypes b & c of *A. actinomycetemcomitans* and the genotypes and find its correlation with periodontal status.

Materials and method: A total of 75 subjects (25 aggressive periodontitis, 25 chronic periodontitis and 25 periodontally healthy) in age range of 14-55 yrs were included. Subgingival plaque samples were collected and checked for the presence of *A. actinomycetemcomitans*. Following isolation of the organism, detection of the serotype b or c was done by multiplex PCR. Genotyping of *A. actinomycetemcomitans* was done by AP-PCR.

Results: Out of 75 plaque samples, 35 tested positive for *A. actinomycetemcomitans* (46.66%). Serotype c was detected in 19/35 (54.28%), whereas serotype b alone was not detected in any of the samples. 2 samples were positive for both the serotypes (b and c) (5.71%) and 14 (40%) were untypeable. 14 different AP-PCR genotypes were obtained among 35 *A. actinomycetemcomitans* isolates.

Conclusion: Serotype c was predominant in periodontally diseased as well as healthy individuals. An association could be present between genotype – serotype and genotype – periodontal status.

Keywords: Aggressive periodontitis, *A. actinomycetemcomitans*, serotype, genotype, PCR, AP-PCR