Effects of Green Coffee Bean Extract on P. gingivalis and A. actinomycetemcomitans in comparision to Chlorhexidine: An In-vitro study.

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- **Abstract:** Brief Background Periodontal pathogens like Aggregatibactor actinomycetemcomitans, Porphyromonas gingivalis etc., are considered to be the primary aetiologic factors for the periodontal diseases. Chlorhexidine is a gold standard antimicrobial agent with a broad antibacterial activity and has been used for chemical plaque control. But chlorhexidine is known to cause staining when used for a longer time. Hence, other agents with herbal contents are being researched that can be used on a regular basis. Materials and Methods Minimum Inhibitory Concentration (MIC), Minimum Bactericidal Concentrations (MBC) and Zone of Inhibition (ZOI) were used to assess the antibacterial effect of Green Coffee Bean Extract against periodontal pathogens by micro dilution method and culture method, and it was compared with chlorhexidine. Results For Green Coffee extract, MIC value of P.g and A.a was 50 ug/ml and 100 ug/ml respectively, MBC value of P.g and A.a was 50 ug/ml and 100 ug/ml respectively and Zone of Inhibition of P.g was 15 mm at 50 ug/ml and of A.a was 12 mm at 100 ug/ml. For Chlorhexidine, MIC value of P.g and A.a was 0.2 ug/ml and 12.5 ug/ml respectively, MBC value of P.g and A.a was 1.6 ug/ml and 12.5 ug/ml respectively and Zone of Inhibition of P.g was 13 mm at 1.6 ug/ml and of A.a was 12 mm at 12.5 ug/ml. Summary and Conclusions Antibacterial activity of Green Coffee Bean Extract against P.g and A.a shows that it could used as a herbal adjunct to chlorhexidine for chemical plaque.