



**P523 - 263: THE ANTIMICROBIAL AND CLINICAL EFFECTS OF OZONIZED WATER, CHLORHEXIDINE, AMOXICILLIN -METRONIDAZOLE, ON PORPHYROMONAS GINGIVALIS**

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**Background and Aim:**Background: Recently ozone as a disinfectant effective in the treatment of periodontal disease has been suggested, this study investigated the in vitro antimicrobial activity Ozonized water, chlorhexidine, amoxicillin, metronidazole and amoxicillin-metronidazole combination on the bacterium Porphyromonas gingivalis (Pg).

**Methods:**Material and Methods: In Vitro study, double-blind by different concentration from ozone- water, chlorhexidine, amoxicillin, metronidazole injection, suspension of metronidazole and amoxicillin-metronidazole combination with 7 times in the presence of bacteria in a test tube Pg and its antimicrobial effect by the method of MIC using turbidity and MBC and count the number of colonies were determined. Statistical analysis was performed with two way ANOVA and LSD methods.

**Results:**Results: the MIC of ozone- water, chlorhexidine, amoxicillin, metronidazole injection, suspension of metronidazole and amoxicillin-metronidazole combination of respectively 7.0, 3, 190, 310, 12 500 and 10 micro grams per ml. and MBC respectively 1, 7, 390, 310, 2500 and 10 micro grams per ml, respectively, MIC and MBC were obtained ozone- water, chlorhexidine and amoxicillin-metronidazole combination with significant differences ( $P \leq 0.05$ ).

**Conclusion:**Conclusion: ozone- water strong antimicrobial effect than chlorhexidine, amoxicillin, metronidazole and amoxicillin-metronidazole combination on the bacterium Porphyromonas gingivalis can be used in the treatment of periodontal disease.

**Keywords:**Keywords Porphyromonas gingivalis, Ozone water, Chlorhexidine, Amoxicillin- Metronidazole