ABSTRACT

Background: *Microbial infection is the main source of irritation in the dental pulp tissue including bacteria found in caries The number of invading bacteria that infects root canals is not only specific 1 type of bacteria but there are many. Therefore, ideal irrigation solutions should have good antimicrobial effectiveness, not be toxic on periapical tissue, can dissolve necrotic tissue, lubricate the root canal and help to eliminate the smear layer. NaOCl, EDTA and chlorhexidine are solutions commonly used for irrigation.However, research showing the use of a combination of certain irrigation solutions to increase the effectiveness of the irrigation solution and support the success of the treatmen is required.* ***Purpose:*** *The purpose of this research is to know the difference between antibacterial power of NaOCl 5.25% followed by EDTA17% (Sequence Irrigation) compared to Mix solution (Chlorhexidine 2% and EDTA 17%) as irrigation solution to root canal bacteria to obtain irrigation solution appropriate to reduce the amount of bacterial mix on the root canal of the tooth.* ***Methods:*** *mixed bacteria in root canal was taken directly on necrotic teeth and inoculated on 24 premolar teeth without caries and then given irrigation treatment according to the group that is group I using NaOCL 5.25%, group II using NaOCL5.25% followed by EDTA 17%, group III using mix solution (CHX 2% and EDTA 17 %) and group IV as control. Then the irrigated teeth were inserted with sterile paper point which was placed on the Sabouraud dextrose agar. The plates were next incubated at 37°C for 24 h and colony forming units (CFUs) that were grown were counted.* ***Result:*** *there is no significant difference between treatment group NaOCl 5.25% followed by EDTA 17% and mix solution (CHX 2% and EDTA 17%).* ***Conclusion:*** *Chlorhexidine and NaOCl are irrigation solutions that have the same antibacterial power.*

Keyword: antibacterial, NaOCl, EDTA, CHX, mixed bacteria