Root canal treatment is a procedure that performed to eliminate microorganisms in the root canal of the tooth with necrotic pulp. Microorganisms in a biofilm on the root canal led to the failure of root canal treatment. One of microorganisms that were able to form biofilms and cause failure of root canal treatment were the Enterococcus faecalis bacteria. The use of antimicrobial agents as a root canal irrigation were needed to eliminate microorganisms in the biofilms form. NaOCl is a irrigation material that is considered the most effective and popular. NaOCl has antimicrobial properties, have the ability to dispose of smear layer, lubricating, disinfecting and low viscosity so that it can penetrate into the dentin tubules well. In addition, the solution khelator often used in root canal treatment is EDTA. EDTA as kelator solution will remove the calcium ions bind chemically, would eliminate the smear layer. The combination of EDTA with NaOCl irrigation during preparation and potential as a cleansing agent to soften dentin major clinical and to reduce the smear layer, biofilm and debris.

Key words: antibiofilm, Enterococcus faecalis, irrigation solution NaOCl 5.25%, combination of EDTA 17% with NaOCl 2.5%