

Evaluate (0.2% CHX) Disinfection Solution Effects Incorporation on the Setting Time, Setting Expansion and Compressive Strength of Dental Stone

This study aims to evaluate the effect of incorporation of 0.2% Chlorhexidine disinfection solution on the setting time, setting expansion and (wet and dry) compressive strengths of dental stone compared with these obtained control stone. The method included preparation of specimen and procedure were at 23 ± 2 C temperature and 50 ± 10 relative humidity. The water/powder (W/P) ratio 100g of stone and 33ml of 0.2% CHX mixed for one minute with manual spatulation at rate 120rpm. It was found that 0.2% CHX solution increased the setting time for both types but this is increasing the clinically significant; then improvement in the dry and wet compressive strength for both types. Setting expansion was increased slightly for both types of stone but it with American Dental Associations (ADA) specification range 0.0-0.2%.