Pengaruh bahan desinfektan terhadap flexural strength material thermoplastic nylon = The effect of disinfectant to ihermoplastic nylon material flexural strength

Putry Bunda Navirie, author

Abstrak

The oral health of denture wearers depends on the cleanliness of their denture. Therefore, it needs proper care and maintenance to prolong the denture wearing, while the oral mucosa is kept healthy. Maintenance and cleaning the denture by brushing and immersing in desinfectant solution is done to eliminate microorganims. Themoplastic nylon is widely used as material of choice in constructing partial or full denture instead of acrylic resin heat-cured material. This material is superior due to good esthetic, thinner denture base compared with acrylic resin denture base, and alternative material for patient allergic to acrylic monomer. Based on findings, immersion in disinfectant solution for 24 hours can increase the rigidity of nylon denture base material. Refer to those, a research was done to discover the effect of chlorhexidine gluconate 0,2% and sodium hypoclorite 1% disinfectant solution to flexural strength of thermoplastic nylon material, bearing in mind that a those solution are available abundantly in less price. ln this research it is concluded that flexural strength of thermoplastic nylon material is increased in sodium hypochlorite 1% immersion compared to chlorhexidine gluconate 0,2%, aquadest immersion, and control group. Flexural strength of thermoplastic nylon material in chlorhexidine gluconate 0,2% and aquadest immersion are relatively equal. (p=1,000). Hereby disinfectant solution could effect to flexural strength of thermoplastic nylon material. Chlorhexidine gluconate 0,2% and aquadest immersion can decrease flexural strength compared to control group (p=0,000). Anticipation on physical, mechanical, and chemical changes of denture made from thermoplastic nylon material rises a need of socialization among dentist that thermoplastic nylon material can change at immersion in sodium Hypochlorite 1% and chlorhexidine gluconate 0,2% solution. To this matter, further research of other disinfectant solutions needs to be done.