

The Effect of Mangosteen Peel Extract (*Garcinia Mangostana L.*) as Denture Cleanser on Heat Cure Acrylic Resin Toward *Candida Albicans* Growth and Colour Changes



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DENTAL RESEARCH EXHIBITION AND MEETING

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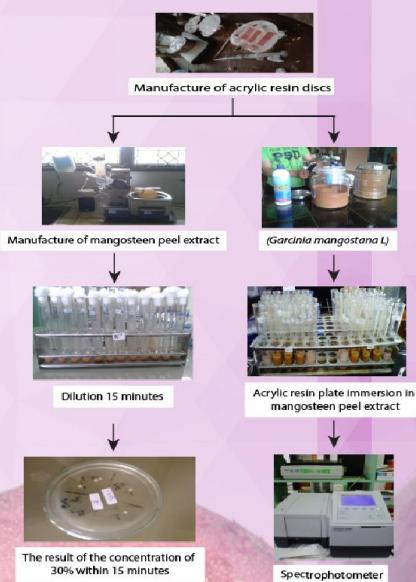
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BACKGROUND

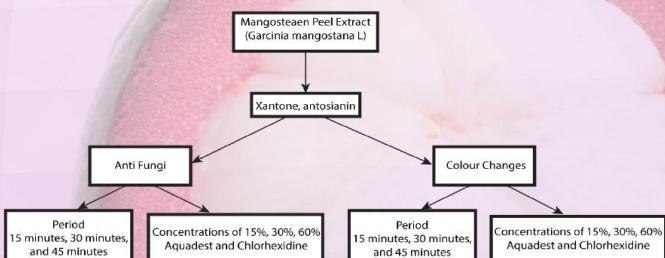
Dentures are retention factors of plaque accumulation and microorganism such as *Candida albicans* causing denture stomatitis. Patients usually use some materials to clean the dentures. An ideal denture cleanser should have antibacteria, antifungal, easy to use and does not colour changes. There is no product that meets all of the requirements so it is very important to find the new product.

AIM

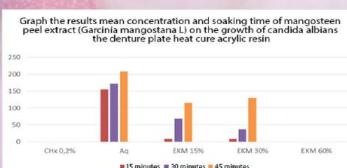
The aim of this study is to know the effect of concentration and the duration of submersion mangosteen skin extract to the growth of *C.Albicans* and to the colour changes in heat cure acrylic resin.



MATERIAL & METHODE



RESULT



The Conclusion above table is that the greater the concentration of mangosteen peel extract the lower the value of the average growth of *Candida albicans*.

The mean value acrylic resin plate color change before and after immersion of distilled water, mangosteen peel extract 15%, 30% mangosteen peel extract, mangosteen peel extract 60% and 0.2% chlorhexidine for 15 minutes, 105 minutes and 210 minutes

immersion time	Test material	Before immersion	After immersion
15 minutes	Aquades	2,75224	2,364272
	EKM 15%	2,170476	2,238436
	EKM 30%	2,408384	2,422308
	EKM 60%	2,166164	2,197804
	Chx 0,2%	2,49618	2,388668
105 minutes	Aquades	2,2797	2,263304
	EKM 15%	2,356964	2,453876
	EKM 30%	2,441788	2,488664
	EKM 60%	2,381324	2,383176
	Chx 0,2%	2,52138	2,392188
210 minutes	Aquades	2,841236	2,3477
	EKM 15%	2,240228	2,40476
	EKM 30%	2,478712	2,500228
	EKM 60%	2,348008	2,4313
	Chx 0,2%	2,30484	2,15562

Information :
EKM 15% = 15% Mangosteen peel extract
EKM 30% = 30% Mangosteen peel extract
EKM 60% = 60% Mangosteen peel extract
Chx 0,2% = Chlorhexidine 0,2%

According to the table above shows that the average value of the color change of acrylic plate increases the soaking treatment with mangosteen peel extract concentration of 15%, 30% and 60%. While the average value of the color change of acrylic plate is reduced in the control group in distilled water and 0.2% chlorhexidine.

DISCUSSION

The conclusion of this study is that the 60% of mangosteen peel extract is the most effective concentration in inhibiting *C.Albicans* on the heat cure acrylic resin plate and it influences the colour changes but the duration of submersion doesn't influence both of them.

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