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Effect of lithium disilicate ceramic surface neutralization on wettability of silane coupling agents and adhesive resin cements

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This study aimed to investigate the impact of surface neutralization on the wettability of etched glass ceramic surfaces treated with silane primers, adhesive resin, and resin cement. Lithium disilicate ceramic specimens were prepared and randomly assigned to control (non-neutralized) and treatment (neutralized) groups. Wettability was evaluated using contact angle measurements. The results showed that neutralizing the ceramic surface did not significantly affect the wettability of silanes and resin-based materials. However, the experimental silane primer exhibited better wettability than the commercial silane. The adhesive resin demonstrated lower contact angle values (higher wettability) compared to the commercial resin cement. Furthermore, the experimental resin displayed improved wettability on both commercial and experimental silane-treated specimens. These findings suggest that surface neutralization did not

impact the wettability of etched ceramic, but variations in wetting properties were observed between silane primers, adhesive resin, and resin composite luting cements.

Biography

Khuloud Fahad Alghamdi is a dedicated dental professional with a wealth of experience and expertise. She is currently serving as a Specialist in Restorative Dentistry, a role she has held since October 2019. Prior to this, she worked as a General Dental Practitioner from February 2013 to September 2017, gaining extensive experience in various areas of dentistry. Khuloud has a strong academic background, having obtained a Bachelor of Dental Surgery (B.D.S) and completed her Saudi Board Family Dentistry 2022. She is an active member of several professional dental societies and has contributed to research in the field. Khuloud is fluent in both Arabic and English. Her skills include effective communication, problem-solving, and teamwork. Throughout her career, she has been involved in organizing various community service projects and dental conferences, demonstrating her commitment to both her profession and the community.

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