

MICROHARDNESS AND SURFACE TEXTURE ASSESSMENT OF THREE DIRECT ESTHETIC RESTORATIVE MATERIALS FOLLOWING APPLICATION OF A HOME BLEACHING AGENT

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Abstract:

In the past few years, several bleaching products have become available to the general public without prescription or dentist monitoring. The present investigation was undertaken to determine the effect of 10% carbamide peroxide home bleaching agent on the microhardness and surface texture of a hybrid composite resin (Z100), a polyacid modified resin (Dyract) and a resin modified glass ionomer cement (Photac-Fil). The results of the microhardness testing showed a highly significant difference ($P < 0.01$) between the bleached and unbleached specimens for both Z100 and Photac-Fil specimens. Meanwhile, the results of the surface roughness testing showed a highly significant difference ($P < 0.01$) between bleached and unbleached specimens of Z100 composite resin only. It was concluded that the home bleaching gel has deleterious effects on the surface of hybrid composite resin, polyacid modified resin and resin modified glass ionomer cement and must be used under professional monitoring.

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