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[\[Image PDF \(499K\)\]](#) [\[References\]](#)**Bond strengths of two conventional glass-ionomer cements to irradiated and non-irradiated dentin**[Cemal YESILYURT^{1\)}](#), [Bilinç BULUCU^{2\)}](#), [Orhan SEZEN^{3\)}](#), [Günes BULUT^{1\)}](#) and [Davut CELİK^{4\)}](#)

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Abstract:

This study evaluated the influence of irradiation on the dentin shear bond strength of two conventional glass ionomer cements (GICs). Thirty extracted molars were bisected in the mesio-distal direction. One-half of 20 teeth were irradiated with 60 Gy (5 days/week) for 6 weeks, and then GIC was placed on the irradiated dentin surface (Groups A1, B1). For the other halves of these tooth specimens, the GICs were first placed on their dentin surfaces and then the specimens irradiated (Groups A2, B2). The remaining 10 teeth were bisected and used as non-irradiated controls (Groups C1, C2). The GIC-dentin shear bond strengths were examined. Groups A2 and B2 had significantly lower bond strengths than groups A1, B1, C1, and C2 ($p < 0.05$). No significant differences were found among groups A1, B1, C1, and C2 ($p > 0.05$). In conclusion, irradiation may have an adverse effect on the bond strength of GICs depending on the application sequence.

Key words:[Irradiation](#), [Glass-ionomer cements](#), [Adhesion](#)[\[Image PDF \(499K\)\]](#) [\[References\]](#)

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