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## Cement-associated peri-implantitis: a retrospective clinical observational study of fixed implant-supported restorations using a methacrylate cement

Michael Korsch 1, Ursula Obst, Winfried Walther Affiliations Expand

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## Abstract

**Background:** Cement-retained fixed implant-supported restorations involve the risk of excess cement, which can associate peri-implantitis. In connection with routine therapy using a methacrylate cement (Premier Implant Cement, Premier(®) Dental Products Company, Plymouth Meeting, PA, USA) to retain fixed implant-supported restorations, complications, that is, inflammations, were developed in some cases. After removing the suprastructure and the abutment, residual excessive cement was found. For this reason, all implant-supported restorations that had been fixed with this type of methacrylate cement were reevaluated and retreated.

**Methods:** In a retrospective clinical observational study including 71 patients with 126 implants, the findings made during retreatment were documented. In all cases, the suprastructure and the abutment were removed. For recementation, Temp Bond (Kerr Sybron Dental Specialities, Washington, D.C., USA) was used. If an inflammation had developed, a follow-up appointment was scheduled 3-4 weeks later.

**Results:** In 59.5% of the implants, cement residues were identified. Bleeding on probing was diagnosed at 80% of the implants with excess cement and suppuration at 21.3% of the implants. After removal of the excess cement and recementation with Temp Bond, a 76.9% reduction in bleeding on probing was found at follow-up. Suppuration was not found around any of the implants at follow-up.

**Conclusion:** Excess cement left in the implant–mucosal interface caused bleeding on probing in most cases and suppuration in some. The removal of excess cement after cementation should be given high priority. In this retrospective observational study, an unusually high number of implants with excess cement after cementation was found with the methacrylate cement applied in the study.

Keywords: cement-retained dentures; excess cement; implants; peri-implantitis.

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