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By
Dr. Ameer Hamdi AL-Ameedee
Ph. D Esthetic and Operative Dentistry
Temporary Crown

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K Langland, LK Langland - The Journal of prosthetic dentistry, 1965 - Elsevier
MATERIALS AND METHODS: The test procedures were conducted on 138 human teeth. Of these, 111 teeth were clinically sound premolars from 10- to 15-year-old individuals. The remaining 27 teeth were from adults, 43 to 60 years of age. Sixteen of the adult teeth had ...
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L. Karner, K. Alanko, T. Esterland - Allergy, 1999 - Wiley Online Library
Occupational allergic contact dermatitis caused by (meth)acrylates is often reported in dental personnel (1,2), whereas dental acrylic fillings and crowns have rarely caused problems in dental patients (4,5). Here we report on a 46-year-old woman who ...
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Statement of problem. Studies have suggested that coating a temporary restoration with varnish material could replace time-consuming polishing procedures needed for achieving an optimally smooth surface. Purpose. This study examined the surface roughness of ...
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Pulp reactions to crown preparation, impression, temporary crown fixation, and permanent cementation

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Abstract References
Pulp reactions to crown preparation, impression, temporary crown fixation, and permanent cementation

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Abstract

PULP REACTIONS TO CROWN PREPARATION, IMPRESSION, TEMPORARY CROWN FIXATION, AND PERMANENT CEMENTATION

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Each step in full crown procedure presents hazards which may injure the pulp. To the dentist, the result may be pulpitis or, even, necrosis. To the patient, pulp injury may mean pain and eventual loss of the tooth.

The only well-founded method of ascertaining pulp injury is by histologic examination. While numerous reports have been published on all facets of operative dentistry, to our knowledge, there are only two publications on the histologic response of the dental pulp to full crown procedures. But these reports covered
Blood circulation in the dental pulp
G Kosian, GW Bunoff - The Journal of the American Dental Association, 1959 - Elsevier
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METHOD Twenty-five matrices were constructed over a Trypodont model using the Omnivac machines and clear acrylic sheets (3). The mandibular second premolar and first molar were removed from the Trypodont, and abutments for a four-unit fixed partial denture were ...
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The marginal integrity of the temporary acrylic resin crown

Nasser Barghi, D.D.S.,* and Earl Wayne Simmons, Jr., D.M.D.**

*The University of Texas, Dental School, San Antonio, Texas
The marginal integrity of the temporary acrylic resin crown

Nasser Borghi, D.D.S.,* and Earl Wayne Simmons, Jr., D.M.D.**
The University of Texas, Dental School, San Antonio, Texas

A primary objective of the temporary crown is to maintain good gingival health prior to placement of the final restoration. Unless the temporary crown has a well adapted and well contoured margin, it may be difficult to achieve this goal. In addition to good gingival health, several other desirable ends are achieved by assuring well adapted margins on temporary crowns. One of these is decreased sensitivity, which is demonstrated when freshly prepared dentin is left exposed to the oral environment. Also, better esthetic values are obtained when margins of temporary crowns extend to the finishing lines of anterior preparations.

It is desirable to construct temporary crowns which have well adapted margins at the finishing lines of the preparations to protect the prepared tooth. This report describes a method which will predictably facilitate the construction of such well adapted margins.

This technique was first performed on a Typodont and later applied to patients.

METHOD

Twenty-five matrices were constructed over a Typodont model using the Omnicat machine and clear acetate sheets.†† The mandibular second premolar and first molar were removed from the Typodont, and abutments for a four-unit fixed partial denture were prepared on the mandibular first premolar and second molar. The abutments had a cluster finishing line. Using cold-curing acrylic resin, 25 temporary fixed partial dentures were constructed on the prepared abutments. Each temporary fixed partial denture was finished, carefully polished, and tried on the Typodont to evaluate the marginal adaptation. Five of the 25 were not relined and
The marginal integrity of the temporary acrylic resin crown

Nasser Borghi, D.D.S.,* and Earl Wayne Simmons, Jr., D.M.D.**
The University of Texas, Dental School, San Antonio, Texas

A primary objective of the temporary crown is to maintain good gingival health prior to placement of the final restoration. Unless the temporary crown has a well adapted and well contoured margin, it may be difficult to achieve this goal. Continued gingival health, several other desirable ends are achieved by the temporary crown.
Temperature response to increased rotational speeds
METHODS An iron-constantan thermocouple connected to a sensitive galvanometer was used to measure the temperature change in the pulp (Fig. 1). The reported sources of error are (1) the thermocouple lag, ... Cited by 34 Related articles All 2 versions Cite Save

The effect of cooling techniques on intrapulpal temperature during direct fabrication of provisional restorations.
MB Moulding, RW Loney - The International journal of ... 1990 - Europmed.org
In vitro measurements were made of the heat transferred to the pulp chamber during the direct fabrication of extracoronal provisional restorations. The temperature was monitored for the following four groups: (1) control – the provisional restoration was left on the tooth with ... Cited by 36 Related articles All 3 versions Cite Save More

Intrapulpal temperature during cavity preparation
SN Bhaskar, GE Lilly - Journal of oral research, 1995 - yale.edu
Materials and Methods A special instrument was designed for this study. It consisted of three parts. Part one was a thermistor probe which was about 3 cm long and at the tapered end was 0.5 mm. Diameter (Fig. 1). It was flexible and of such size and shape that it could be ... Cited by 61 Related articles All 3 versions Cite Save

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The response of the human pulp to self-polymerising acrylic restorations
Allergic contact gingivostomatitis from a temporary crown made of methacrylates and epoxy diacylates - doi: 10.1034/j.1399-995X.1999.00074.x

Abstract

Occupational allergic contact dermatitis caused by methacrylates is common in dental personnel, whereas dental acrylic linings and crowns have rarely been reported to cause problems in dental patients. Here we report a 48-year-old woman who developed symptoms of dermatitis, stomatitis, and perioral dermatitis after a temporary crown made of restorative, two-component material had been inserted.

The manufacturer stated that the temporary crown base paste and catalyst contained three (meth)acrylates: namely, a procrylate, which is a modification of 2,2-bis(4-hydroxy-3-methacryloxypropyl)glycidyl ether (BIS-GMA); a triacrylate, which is a saturated, aliphatic, tricyclic methacrylate; and methacrylate. The manufacturer refused to give more exact information on the (meth)acrylates. Patch testing revealed that the patient was highly allergic to BIS-GMA, other epoxy diacylates, and (meth)acrylates, as well as to the base paste and catalyst of the temporary crown. Accordingly, it was concluded that the allergic reaction was caused by BIS-GMA, or a cross-reacting (meth)acrylate, or both (meth)acrylates in the temporary crown.

Case report and Material and methods

The upper front tooth of a 48-year-old female patient, who was highly allergic to (meth)acrylates and epoxy acrylates, split down to the root. The tooth had to be removed, and a temporary crown made of restorative, two-component material was inserted. Within an hour, the patient felt thickness in her throat, and the next day her upper lip and gum started to swell. We saw her the next day when her upper lip was considerably swollen, exhibiting stomatitis and vesicular eczema. She also had perioral dermatitis, angular cheilitis, gingivitis, and macular erythema on the cheeks and the neck. Personal corticosteroid therapy was started, but the swelling increased and the temporary crown had to be removed. Her symptoms then subsided.

Patch testing and scoring were performed, as previously described (3, 10), with the (meth)acrylate series (Chemotechnique Diagnostics AB, Malmslä, Sweden). They showed the patients extreme sensitivity to several epoxy di(acrylates), which gave 3+ allergic reactions even with very low patch test concentrations (down to 0.001%). Table 1. Paut tests with a series of (meth)acrylates were negative.

Table 1. Patient’s patch test reactions to (meth)acrylate series (Chemotechnique Diagnostics AB, Malmiså, Sweden). "own" methacrylate compounds (Protemp Garant, and diglycidyl ether of bisphenol A epoxy resin (summarized from four patch test sessions). Scoring scheme: −, negative; +, doubtful reaction; ++, weak (nonvesicular) reaction; ++++, strong (vesicular) reaction; ++++, extreme (bullous or ulcerative reaction). + is faint or macular erythema and was not interpreted as proven allergic reaction. # was interpreted as allergic reaction.

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ABSTRACT

A dental coping in the form of an elongated tubular body has a base portion adapted at a first end of the body to mate with the gingival aspect of the patient's implant fixture, and a thin-walled tubular portion extending to the other end of the body approximately from the base portion when the latter portion is accepted.

The base portion is substantially rigid, having a thicker sidewall than the thin-walled tubular portion. A shoulder is provided within the base portion, for cooperating with a bolt to fasten the coping to the implant fixture. A flange extends radially from the coping, preferably from the rigid base portion, for fixing in place a temporary restoration formed around the coping. The fabrication and use of fixed provisional restorations in partially edentulous patients undergoing treatment with osseointegrated fixtures is described.

10 Claims, 1 Drawing Sheet
Allergic contact gingivostomatitis from a temporary crown made of methacrylates and epoxy diacylates

Abstract

Occupational allergic contact dermatitis caused by (meth)acrylates is common in dental personnel, whereas dental acrylic fillings and crowns have rarely been reported to cause problems in dental patients. Here we report on a 48-year-old woman who developed gingivitis, stomatitis, and perioral dermatitis after a temporary crown made of restorative, two-component material had been inserted. The manufacturer stated that the temporary crown base paste and catalyst contained three (meth)acrylates, namely, a monomer, which is a modification of 2,2- bis[4-(2-hydroxy-3-methacryloxypropoxy)phenyl]propane ( Bis-GMA), a triacylate, which is a saturated, aliphatic, triglycidyl methacrylate, and vinylmethacrylate. The manufacturer refused to give more exact information on the (meth)acrylates. Patch testing revealed that the patient was highly allergic to Bis-GMA, other epoxy diacylates, and (meth)acrylates, as well as to the base paste and catalyst of the temporary crown. Accordingly, it was concluded that the allergic reaction was caused by Bis-GMA, or a cross-reacting multipolymer, or other (meth)acrylates in the temporary crown.

Case report and Material and methods

The upper front tooth of a 48-year-old female patient, who was highly allergic to (meth)acrylates and epoxy acrylates, was extracted and a temporary crown made of restorative, two-component material was inserted. Within a few hours, the patient noted swelling in her lower lip, which later spread to the buccal and labial areas. The swelling increased to the point that it was impossible to close the mouth. She was referred to our clinic for further evaluation. A provisional diagnosis of allergic contact stomatitis, transient stomatitis, and perioral dermatitis was made.

Patch testing and scoring were performed, as previously described, with the (meth)acrylate series (Chemotechnique Diagnostics AB, Malmö, Sweden). The patient was extremely sensitive to several epoxy diacylates, which gave 3+ allergic reactions even with very low patch test concentrations (down to 0.0001%). Patch tests with a series of (meth)acrylates were negative.

Table 1: Patient's patch test reactions to (meth)acrylate series (Chemotechnique Diagnostics AB, Malmö, Sweden). "own" methacrylate compounds (Protemp, Kerr) and diglycidyl ether of bisphenol A epoxy resin (summarized from four patch test sessions). Scoring schema: - , negative; ?+, doubtful reaction; +, weak (nonvesicular) reaction; ++, strong (edematous or vesicular) reaction; ++++, extreme (bullous or ulcerative reaction). ?+ is faint or macular erythema and was not interpreted as proven allergic reaction. As such reactions were interpreted as allergic reactions.

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ABSTRACT

A dental coping in the form of an elongated tubular body has a base portion adapted at a first end of the body to mate with the gingival aspect of the patient's implant fixture, and a thin-walled tubular portion extending to the other end of the body supragingivally from the base portion when the base portion is so mated. The base portion is substantially rigid, having a thicker sidewall than the thin-walled tubular portion. A shoulder is provided within the base portion, for cooperating with a bolt to fasten the coping to the implant fixture. A flange extends radially from the coping, preferably from the rigid base portion, for fixing in place a temporary restoration formed around the coping. The fabrication and use of fixed provisional restorations in partially edentulous patients undergoing treatment with osseointegrated fixtures is described.

10 Claims, 1 Drawing Sheet
Allergic contact gingivostomatitis from a temporary crown made of methacrylates and epoxy diacrylates - a review of the literature and additional case reports. Oral Dis 1996;2:253-260


Thank you