

Clinical survival of laminate veneers bonded to teeth with and without existing composite restorations: up to 10 year follow up

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To evaluate the performance of ceramic laminate veneers bonded onto either intact teeth or to teeth with existing composite restorations with no indications of caries, ditching, or marginal staining.

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Other condition
Study type	Observational non invasive

Summary

ID

NL-OMON47758

Source

ToetsingOnline

Brief title

Laminate veneers to teeth with and without existing restorations

Condition

- Other condition

Synonym

laminate veneers

Health condition

tanden, esthetiek

Research involving

Human

Sponsors and support

Primary sponsor: Martini Ziekenhuis

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: adhesive, laminate veneer, restoration, teeth

Outcome measures

Primary outcome

Survival of the restorations and succes:

Pictures will be taken of the veneers and they will be evaluated using a USPHS questionnaire. Laminate veneers will be checked on adaptation of the veneer, color match, marginal discoloration, surface roughness, fracture of the restoration, fracture of the tooth, wear of the restoration, wear of the opposing teeth, caries, postoperative pain. A patient questionairre will be given to the patient.

Secondary outcome

not applicable

Study description

Background summary

The use of ceramic laminate veneers as opposed to metal-ceramic or all-ceramic full-coverage crowns is a minimal invasive treatment option in reconstructive dentistry. Since their retention relies solely on adhesion, durable adhesion of resin luting cements to both the enamel/dentin and the cementation surface of the ceramic is crucial. Ceramic laminates are indicated not only to restore

malformed, malpositioned, or discolored teeth where mainly the substrate is the enamel and/or dentin but also in situations where resin composite restorations are present on the tooth to be restored. In case of secondary caries, severe marginal or surface changes, it may be necessary to remove such restorations. On the other hand, degradation of polymers in the aggressive oral environment may decrease the free radicals available on the resin surface that may eventually decrease the adhesion of resin cements to such composites. However, limited information is available on the survival of ceramic laminates on such existing composite restorations where mainly fractures and marginal defects were reported. Defects were especially noticed at the locations where the existing fillings were present. In fact, today, advances in surface conditioning methods and adhesion promoters enable durable composite-composite adhesion. Among numerous other methods, several studies reported increased composite-composite bond strengths after conditioning the composites with alumina or alumina-coated silica particles followed by silanization. therefore in this study we will evaluate the longterm outcome of laminate veneers bonded to teeth with existing restorations.

Study objective

To evaluate the performance of ceramic laminate veneers bonded onto either intact teeth or to teeth with existing composite restorations with no indications of caries, ditching, or marginal staining.

Study design

This study is retrospective and evaluative. 110 patients were treated with laminate veneers between 2007 and 2017, in total 450 laminate veneers were made by a dentist/specialist. All teeth were evaluated before insertion of the laminate veneers on the amount of dentin/enamel and the existence of existing restorations. All teeth will be evaluated by two independent operators. Pictures will be taken of the veneers and they will be evaluated using a USPHS questionnaire. Laminate veneers will be checked on adaptation of the veneer, color match, marginal discoloration, surface roughness, fracture of the restoration, fracture of the tooth, wear of the restoration, wear of the opposing teeth, caries, postoperative pain. A patient questionnaire will be given to the patient.

Study burden and risks

Checkup of 20 minutes, filling out a questionnaire, no risk, no intervention takes place.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

Population (base) Patients receiving laminate veneers made by dr. M.M.M. Gresnigt using a specific adhesive protocol to fabricate the laminate veneers over existing restorations

Exclusion criteria

teeth without laminate veneers

Study design

Design

Study type: Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

Recruitment

NL

Recruitment status: Recruiting

Start date (anticipated): 01-09-2018

Enrollment: 100

Type: Actual

Ethics review

Approved WMO

Date: 27-08-2018

Application type: First submission

Review commission: RTPO, Regionale Toetsingscie Patientgebonden Onderzoek (Leeuwarden)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL61703.099.17