

NIOM-seminar

Lysebu 1992 11 21/22

1992 11 21

- 10:15 Innledning/oversikt (IAM)
- 11:00 Klinisk forskning : Metoder (AJ)
- 11:30 Fissurforsøgling : Resultater (IAM)
- 12:00 Amalgamprosjektene : Hensikt og kavitetspreparering (AJ)
- 13:00 Lunch
- 14:30 Amalgamprosjektene : Resultater (1) (AJ)
- 15:30 Amalgamprosjektene : Spalter og fyllingsfrakturer (IAM)
- 16:30 Amalgamprosjektene : Resultater (2) (AJ)
- 17:30 Slutt
- 18:30 Aperitif
- 19:00 Middag

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- 08:30 Frokost
- 09:30 Komposittprosjektet (AJ)
- 10:30 Plaqueadhesjon (IAM)
- 11:15 Kronesementering (AJ)
- 12:00 Lunch
- 13:30 Kompositt/amalgam/glassionomerprosjektet (IAM)
- 14:30 Diskusjon
- 15:30 Avslutning

Publikasjoner som helt eller delvis tar utgangspunkt i NIOMs kliniske prosjekter.

1987

Jokstad A, Mjör IA. Cavity designs for Class II amalgam restorations. A literature review and a suggested system for evaluation. *Acta Odontol Scand* 1987;**45**:257-73.

1988

Ryge G, Mjör IA. Quality assessment in operative dentistry. In: *Modern Concepts in Operative Dentistry* (eds. Hørsted Bindslev P, Mjör IA) Copenhagen: Munksgaard 1988, pp. 287-301.

Hørsted Bindslev P, Mjör IA, Leinfelder KF. Amalgam restorations. In: *Modern Concepts in Operative Dentistry* (eds. Hørsted Bindslev P, Mjör IA) Copenhagen: Munksgaard 1988, pp. 146-88.

Johansson BI, Mjör IA. Marginal degradation and corrosion of a dispersed high copper amalgam. *Scand J Dent Res* 1988; **96**: 75-82.

Mjör IA. Clinical assessments of amalgam restorations. *Oper Dent* 1986; **11**: 55-62.

1989

Jokstad A, Mjör IA. The quality of routine Class II cavity preparations for amalgam. *Acta Odontol Scand* 1989;**47**:53-64.

Jokstad A. The dimensions of the everyday Class II cavity preparations for amalgam. *Acta Odontol Scand* 1989;**47**:89-99.

Jokstad A, Mjör IA. Clinical variables affecting the marginal degradation of amalgam restorations. *Acta Odontol Scand* 1989;**48**:379-87.

Jokstad A, Johannessen L, Qvist V, Mjör IA. Klasse II kaviteter til amalgam. *Tandlægebladet* 1989;**96**:230-6.

Jokstad A, Mjör I.A. The relationship between cavity design and marginal degradation of Class II amalgam restorations. *IADR microfilms* 1989, Rapport nr 1046.

1990

Jokstad A, Mjör IA. Cavity design and marginal degradation of Class II amalgam restorations. *Acta Odontol Scand* 1990;**48**:389-97.

Svanberg M, Mjör IA, Ørstavik D. Mutans streptococci in plaque from margins of amalgam, composite and glass ionomer restorations. *J Dent Res* 1990; **69**: 861-864.

Mejäre I, Mjör IA. Glass ionomer and resin-based fissure sealants - a clinical study. *Scand J Dent Res* 1990; **98**: 345-350.

1991

Jokstad A, Mjör IA. Assessment of marginal degradation of restorations on impressions. *Acta Odontol Scand* 1991;**49**:15-25.

Jokstad A, Mjör IA. Analyses of long term clinical behaviour of Class II amalgam restorations. *Acta Odontol Scand* 1991;**49**:47-63.

Jokstad A. Influence of cavity depth on marginal degradation of amalgam restorations. *Acta Odontol Scand* 1991;**49**:65-71.

Jokstad A, Mjör IA. Replacement reasons and service time of Class II amalgam restorations in relation to cavity design. *Acta Odontol Scand* 1991;**49**:109-26.

Jokstad A, Mjör IA. Cavity design, Replacement reasons and service time of amalgam restorations. International Association for Dental research, Dental Materials Group microfilms 1991, Rapport nr. 214.

1992

Jokstad A, Mjör IA. Clinical Performance of Anterior Restorations with Emphasis on Discoloration. International Association for Dental research, Abstract 1185.

Mjör IA, Jokstad A. Four-year Results Using Amalgam, Cermet, and Composite materials for Class II Restorations. International Association for Dental research, Abstract 1888.

Jokstad A. Class II Cavity preparations and restoration performance, Avhandling, Universitetet i Oslo.

In preparation

Mjör IA, Jokstad A. Five-year study of Class II restorations in permanent teeth using amalgam, glass ionomer and resin based composite materials. *J Dent*.

Jokstad A, Mjör IA, Kaping S. Clinical Performance of Anterior Restorations with emphasis on discoloration. *Quintessence Int*.

Jokstad A, Mjör IA, Øilo G. Substance loss on Class II restorations made from amalgam, glass ionomer cement and a composite resin.

Study Objectives

1. Examine the long term clinical performance of two chemically-activated composite resins and one silicate cement and 2. Assess the use of color transparencies of anterior restorations for scoring color match and marginal discoloration, compared to scorings using the clinical USPHS evaluation system (Cvar & Ryge, 1971).

Materials and methods

One dentist - 131 anterior restorations in 57 patients Placed during 1980 to 1982.

112 class III, 6 class IV, 13 class V restorations.

The average patient age was 40 years.

Rubber dam was used.

Calcium hydroxide base (Dycal) applied when indicated.

All enamel cavosurface margins beveled.

Enamel margins etched for 60 seconds, acid solution supplied by the manufacturer.

The materials were inserted using a syringe.

Plastic matrix strips were used to confine and contour the filling materials.

Each patient received at least one microfilled composite resin (Silar) restoration.

When a second restoration was indicated, this was made either from a macrofilled composite resin (Concise) or a silicate cement (Silicap):

<u>Material</u>	<u>Manufacturer</u>	<u>Batch no.</u>
Silicap	Ivoclar AG/Vivadent	121378 1033
Concise	3M Dental Products	052279
Silar	3M Dental Products	040479

Finishing was done with fine bars and strips (Soflex).

The macrofilled composite resin restorations were glazed by the unfilled resin supplied by the manufacturer.

Evaluation

Polishing and baseline evaluation was done within 2 weeks after the restorations had been placed. The patients were recalled at 6 months, and then each year.

At every recall up to 6 years the restorations were rated by two trained dentists according to the protocol of the USPHS system (Cvar & Ryge, 1971) and photographed.

Assessments of bulk and margin discoloration were made on color transparencies at 20 x magnification. The discoloration was scored on the photographs according to reference sets, selected to illustrate the USPHS criteria.

Results

- * The present observations confirm the superior performance and higher secondary caries incidence of composite resins compared to silicate cements.**
- * The macrofilled composite resin showed better performance than the microfilled material.**
- * No secondary caries was observed along the macrofilled composite resin restorations, while five microfilled composite resin restorations were replaced due to secondary caries. Other material factors besides the surface roughness are related to the risk of secondary caries.**
- * Similar incidences of margin discoloration were seen for the macrofilled and microfilled composite resin restorations.**
- * The poor correlation for color match and marginal discoloration between clinical USPHS scorings and indirect scoring using transparencies indicates that the clinical evaluation may be the least sensitive of the two methods. The discrepancy of the scorings may, on the other hand, also signify that photographs depict a reflectance spectrum of the tooth and the composite resins that is not normally obtained in vivo.**

NIOM

Forskningsveien 1

Oslo 3, Norge

Stift materiale: _____

NIOM nr: 1022

Konus materiale: Palliag M

Dato: 2.11.83

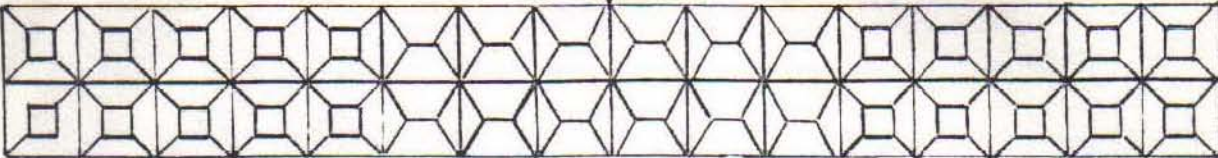
Pasientens navn: Backman Rauha

Fødselsdato: _____

INITIAL REGISTRERING

overkjeve høyre

overkjeve venstre



underkjeve høyre

underkjeve venstre

Angi tann som inngår i undersøkelsen ved å tegne inn fylt rot.

Sett strek over tenner som mangler.

Trekk forbindelseslinje mellom stifttann som inngår i undersøkelsen og antagonistende tenner.

Angi type krone som sementeres: _____

Angi type sement som ble benyttet

a. Til sementering av stiftkonus: _____

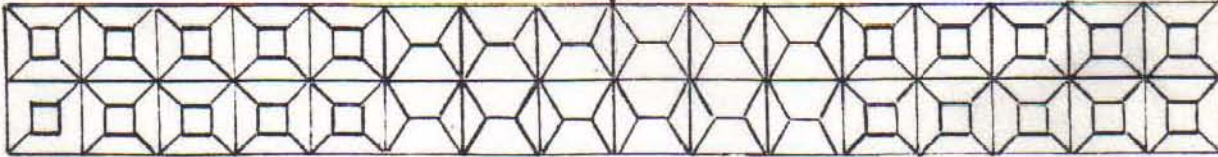
b. Til sementering av krone _____

RECALL REGISTRERINGER

overkjeve høyre

Kontroll måned: juni 84

overkjeve venstre



underkjeve høyre

underkjeve venstre

Karies: Skriv rødt merke på angjeldende flate

Løsning/fraktur: Skriv rød L på angjeldende tann (frakturerte del oversendes NIOM)

Hygiene: God Middels Dårlig (stryk det som ikke passer)

Periapikale forandringer: Ja Nei (stryk det som ikke passer)

Perkusjonsømhhet: Ja Nei (stryk det som ikke passer)

Subjektiv oppfatning: Bra

NIOM sementundersøkelsen

Initiated 1983. Crown and bridge abutments placed between July 1983 and February 1985.

3 participating dentists

AW: 14 single crowns Total: 14 abutments

KM: 14 single crowns
2 tre-item bridges, Total: 18 abutments

TR: 15 single crowns
22 tre-item bridges
9 four-item bridges
5 five-item (and more) bridges
Total 103 abutments

Sum: 135 abutments
63 patients

	Batch	
	Liquid	Powder
52 abutm., De Trey, Zn-Phosphate Cem	BJ3183/01	CC3583/05
41 abutm., Espe, Ketac Cement	1082	1153
42 abutm., GC, Fuji Ionomer	16012	120321

49 post-abutments

86 vital abutments

Notat 14. april 1983

KLINISK SEMENTERINGSUNDERSØKELSE

Denne protokoll er lagt nær opp til den som benyttes i en lignende undersøkelse ved Klinikk for protetikk, Universitetet i Oslo (Den er faktisk delvis en kopi av den).

1. Valg av tenner

- 1.1 Vitale og avitale tenner kan benyttes. Eventuell stiftkonus i metall sementeres først med sinkfosfatsement. Det må oppgis om stiftkonus benyttes og hvilke materialer som blir brukt.
- 1.2 Den valgte tann skal ha faste antagonister.
- 1.3 Fullkroner av alle typer kan benyttes - enkeltkroner - brofester.

2. Tekniske opplysninger

- 2.1 Krone type og material angis på journal (MP for metallbundet porselen og KK for gull/akrylat).
- 2.2 Det er ønskelig med løstilpassning av kroner. Hvis dette ikke er tilfelle, må dette bemerkes på journalen.
- 2.3 Dato for sementering av krone påføres journalen.
- 2.4 Modeller oversendes NIOM hvor de påføres NIOM nummer (som tannlegen får oppgitt og påfører journalen).
- 2.5 Okkluderende tenner avmerkes på vedlagte journal.
- ~~2.6 Konvergensvinkel og areal registreres ved NIOM.~~

3. Kontroller/kriterier

- 3.1 Kontroller foretas ved tid 0, 1/2 år, 1 år og deretter én gang pr. år fra 1. registrering.
- 3.2 Register
 - 3.2.1 Løsning (hvis stifttann angis det om stiftkonus også er løs)
 - 3.2.2 Karies (sekundærkaries)
 - 3.2.3 Periapikale forandringer (røntgen ved bruk av periødisk-identiske opptak, f.eks. Eggens teknikk)
 - 3.2.4 Perkusjonsømhøhet
 - 3.2.5 Pasientens subjektive oppfatning (smerter, vond å bite på, etc.)
 - 3.2.6 Munnhygiene (gød, middels, dårlig)

4. Sementer

- 4.1 De Trey Zink Zement Improved
- 4.2 Fuji Ionomer sement
- 4.3 Ketac Cement