

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

The clinical comparison of fissure sealant retention using self-etch and etch-rinse systems

Protocol summary

Summary

Fissure sealant therapy is an effective technique to prevent occlusal caries. However, rinsing teeth after etching may cause uncooperative behavior in children. Prompt L-Pop (PLP) does not require separated acid etching and rinsing phase. The objective of this study was to compare the retention of fissure sealant therapy following the preparation with (PLP) and acid etch-bonding techniques. In this randomized clinical trial study, 40 patients aged 7-12 years with a pair of intact first permanent molars in upper or lower archs indicated for sealant therapy, were selected and one teeth was randomly prepared with single bond (sb) technique and the similar teeth was prepared with PLP , followed by sealant therapy. After 6 and 12 months retention of sealents were controlled by explorers and clinical observation.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138811053168N1**

Registration date: **2010-04-18, 1389/01/29**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2010-04-18, 1389/01/29

Registrant information

Name

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Name of organization / entity

Tabriz University of Medical sciences

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Recruitment status

Recruitment complete

Funding source

Research Vice-Chancellor, Tabriz University of Medical Sciences

Expected recruitment start date

2008-07-31, 1387/05/10

Expected recruitment end date

2009-09-01, 1388/06/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The clinical comparison of fissure sealant retention using self-etch and etch-rinse systems

Public title

The clinical comparison of two methods for sealing fissures of young permanent teeth

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion Criteria 1)7-12 years of age,2)presence of two first upper or lower molars without caries, 3)deep groove that indicate fissure sealant therapy,4)satisfaction of parentes. Exclusion Criteria 1) carious molars, 2)if two molars were not in the same jaw

Age

From **7 years** old to **12 years** old

Gender

Both

Phase exploration and observation

N/A

Groups that have been masked

No information

Sample size

Target sample size: 80

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research vice-chancellor, Tabriz University of Medical Sciences

Street address

Daneshgah Ave. - Golgasht St.-Tabriz University of Medical Sciences

City

Tabriz

Postal code

Approval date

empty

Ethics committee reference number

2054

Health conditions studied

1

Description of health condition studied

clinical evaluation of two fissure sealant therapy methods

ICD-10 code

z01.2

ICD-10 code description

dental examination

Primary outcomes

1

Description

The retention of sealants

Timepoint

6 and 12 months

Method of measurement

Secondary outcomes

1

Description

The working time

Timepoint

6 and 12 months

Method of measurement

exploration and observation

Intervention groups

1

Description

fissure sealant therapy with: PLP

Category

Prevention

2

Description

fissure sealant therapy with: acid etch and bonding

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Tabriz Faculty of Dentistry-Department of Pediatric Dentistry

Full name of responsible person

Leili Erfanparast

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Daneshgah Ave- Golgasht St.-Tabriz Univdrsty of Medical Sciences-Faculty of Dentistry-Department of Pediatric Dentistry

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Sponsors / Funding sources

1

Sponsor

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Research Vice-Chancellor- Tabriz University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

empty

Person responsible for general inquiries**Contact****Name of organization / entity**

Faculty of Dentistry

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Web page address**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty