Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Effect of aluminum chloride as a hemostatic agent on shear bond strength of two step self etch and universal bonding agents used on extracted human teeth

Protocol summary

Summary

Objectives: Bond strength of the composite restorations is one of the important factors to achieve success in restoring teeth. This in vitro study evaluated the effect of a hemostatic agent on shear bond strength of a two step self etch and a Universal bonding agents. Design: This study is an double blind study. Forty extracted human premolars without any caries, cracks and restorations were selected. Setting and conduct: After disinfection process with Thymol solution, specimens were kept in distilled water until the beginning of the test procedures. The mesial or distal dentin surfaces were exposed and polished for the same time to gain similar smear layers. They randomly assigned to four groups as follows: (n=10) A: ViscoStat Clear and All Bond SE B: ViscoStat Clear and All Bond Universal C: All Bond SE D: All Bond Universal. The information was kept with a person who did not play a roll in the bond strength test. ViscoStat Clear was applied according to manufacturer's instructions. Then it was rinsed with constant pressure and the rinsing time was as long as the application time. Composite cylinders were incrementally cured on the dentine surfaces. After 1000 rounds of thermocycling (5 to 55 °C with a dwell time of 30 seconds and a transfer time of 30 seconds), shear bond strength test was performed. Intervention: Aluminum chloride as a hemostatic agent (ViscoStat Clear)

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017101136711N1**
Registration date: **2017-11-13, 1396/08/22**
Registration timing: **prospective**

Last update:
Update count: **0**

Registration date

2017-11-13, 1396/08/22

Registrant information

Name

Keyvan Saati

Name of organization / entity

Islamic Azad University of Medical Sciences, Dental Branch, Tehran

Country

Iran (Islamic Republic of)

Phone

+98 21 2258 0925

Email address

k_saati@dentaliau.ac.ir

Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2017-11-22, 1396/09/01

Expected recruitment end date

2017-12-22, 1396/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of aluminum chloride as a hemostatic agent on shear bond strength of two step self etch and universal bonding agents used on extracted human teeth

Public title

Effect of an anti bleeding substance on durability of the

composite restorations

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: human extracted premolar; teeth with approximately the same size Exclusion criteria: caries; cracks; restorations

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

This study is not a clinical trial one. It is an in vitro study. The study is done on the extracted human teeth. In our country, it is not necessary to get ethics committee code for extracted teeth. Now we want to submit this study to a journal of another country. In the author's instructions, it is written that ethics committee code is necessary even for the extracted teeth. As a result, we are proceeding to get this code. According to Iranian Registry Clinical Trial organization's laws, the date of the recruitment should be specified. Whereas the current study has been done on extracted human teeth and it has completed. The teeth were collected in the year 2016. Since this date has passed, it is not approved by the mentioned organization. Therefore the specified date is actually after the completion of the study.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Islamic Azad University of Medical Sciences, Dental Branch

Street address

Neyestan 9 Ave. Pasdaran St. Tehran

City

Tehran

Postal code

19585175

Approval date

2017-09-24, 1396/07/02

Ethics committee reference number

IR.IAU.DENTAL.REC.1396,24

Health conditions studied

1

Description of health condition studied

Relationship between the aluminum chloride as a hemostatic agent and shear bond strength of a two step self etching and universal bonding agents

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Shear bond strength

Timepoint

24 h

Method of measurement

Universal Testing Machine

Secondary outcomes

empty

Intervention groups

1

Description

Aluminum chloride as a hemostatic agent according to manufacturer's instructions (test group)

Category

Prevention

2

Description

without hemostatic agent (control group)

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Islamic Azad University of Medical Sciences, Dental Branch

Full name of responsible person

Keyvan Saati

Street address

Islamic Azad University, Dental Branch, Neyestan 9 Ave. Pasdaran St.

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Investigator

Full name of responsible person

Investigator

Street address

-

City

Tehran

Grant name

Grant code / Reference number

-

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

Yes

Title of funding source

Investigator

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

Islamic Azad University of Medical Sciences, Dental Branch, Tehran

Full name of responsible person

Keyvan Saati

Position

DDS, MS Assistant Professor

Other areas of specialty/work

Street address

Neyestan 9 Ave. Pasdaran St. Tehran, Iran

City

Tehran

Postal code

19585175

Phone

+98 21 2258 0925

Fax

+98 21 2276 3432

Email

keivan.saati@gmail.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Islamic Azad University of Medical Sciences, Dental Branch, Tehran

Full name of responsible person

Keyvan Saati

Position

DDS, MS Assistant Professor

Other areas of specialty/work

Street address

Neyestan 9 Ave. Pasdaran St. Tehran

City

Tehran

Postal code

19585175

Phone

+98 21 2258 0925

Fax

+98 21 2276 3432

Email

keivan.saati@gmail.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Islamic Azad University of Medical Sciences, Dental Branch, Tehran

Full name of responsible person

Bahar Bonakdar

Position

Student

Other areas of specialty/work

Street address

Neyestan 9 Ave. Pasdaran St. Tehran

City

Tehran

Postal code

19585175

Phone

00

Fax

+98 21 2276 3432

Email

bahar.bnk@gmail.com

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