Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Clinical outcomes of silk sutures versus nylon sutures for suturing of conjunctival autograft in pterygium surgery

Protocol summary

Summary

Pterygium is a wing-shape fibrovascular lesion of the ocular surface, which is associated with chronic sunlight exposure. As pterygium progress, decreased vision, discomfort and restricted ocular motility can result. Until now, a wide spectrum of treatment strategies have been described for pterygium treatment, including pterygium excision with bare sclera, conjunctival autograft, amniotic membrane transplantation (AMT), adjunctive use of mitomycin-C. Pterygium excision followed by conjunctival autograft has been shown to be a safe and effective procedure for pterygium, with recurrence rates ranging from 2% to 39%. Various suture materials and techniques are employed to secure the autograft, including absorbable and non-absorbable sutures of different diameters. A prospective, randomized, controlled, clinical trial will conducted, in which 50 eyes of 50 patients with primary nasal pterygium will randomized to undergo pterygium surgery with the use of nylon sutures or silk sutures for conjunctival autograft suturing. Patients will followed up for 6 months. Outcome measures included postoperative discomfort according to a visual analogue scale (VAS), graft dehiscence, graft edema, suture loosening and recurrence. All remaining sutures will removed 2 weeks postoperatively.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016100230080N1**
Registration date: **2017-01-13, 1395/10/24**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2017-01-13, 1395/10/24

Registrant information

Name

Hossein Jamali

Name of organization / entity

Shiraz University of Medical Sciences

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Shiraz University of Medical Sciences

Expected recruitment start date

2015-12-22, 1394/10/01

Expected recruitment end date

2016-03-19, 1394/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Clinical outcomes of silk sutures versus nylon sutures for suturing of conjunctival autograft in pterygium surgery

Public title

Clinical outcomes of silk sutures versus nylon sutures for suturing of conjunctival autograft in pterygium surgery

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: primary nasal pterygium; age 18 years or older and able to co-operate in surgery under local anesthesia Exclusion criteria: recurrent pterygium,

temporal or double-head pterygia, scarred superior conjunctiva, previous surgery involving the superior bulbar conjunctiva, history of glaucoma, and/or cicatricial ocular surface disease

Age

From **18 years** old to **80 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **50**

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

Shiraz University of Medical Sciences

Street address

Khalili Hospital, Khalili Street, Shiraz

City

Shiraz

Postal code

7134997446

Approval date

2015-12-07, 1394/09/16

Ethics committee reference number

IR.SUMS.MED.REC.1394.59

Health conditions studied

1

Description of health condition studied

Pterygium

ICD-10 code

H11.0

ICD-10 code description

Pterygium

Primary outcomes

1

Description

Difference in VAS score between the two groups

Timepoint

One day after surgery and one week after surgery and two weeks after surgery

Method of measurement

Visual analogue scale

Secondary outcomes

1

Description

Graft hyperaemia, graft dehiscence, graft edema, suture loosening and recurrence

Timepoint

First day and first week and first month and third and sixth months after surgery

Method of measurement

Clinical examination and slit photography

Intervention groups

1

Description

Silk sutures in intervention group for suturing of autograft conjunctival tissue and will remain for two weeks in the patient's eye

Category

Treatment - Surgery

2

Description

Nylon sutures in intervention group for suturing of autograft conjunctival tissue and will remain for two weeks in the patient's eye

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Khalili Hospital

Full name of responsible person

Doctor Hossein Jamali

Street address

Khalili Hospital, Khalili Street, Shiraz

City

Shiraz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellorfor research, Shiraz University of Medical Sciences
Full name of responsible person
Doctor Seyed Basir Hashemi
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Shiraz University of Medical Sciences central building, Zand BLVD, Shiraz, Iran
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Shiraz
Grant name
پایان نامه دانشجویی
Grant code / Reference number
94-01-01-9194
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellorfor research, Shiraz 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

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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