

Submission ID #: 67836

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Title: Surgical Correction for Pediatric Epiblepharon and Trichiasis

Authors and Affiliations:

Yu Cui¹, Fengting Liu¹, Jiayu Xue¹

¹Suzhou Eye Hospital Affiliated to Suzhou Vocational Health College

Corresponding Authors:

Yu Cui 1183604134@qq.com

Email Addresses for All Authors:

Fengting Liu 646015244@qq.com

Cui Yu 1183604134@qq.com

Author Questionnaire

1. We have marked your project as author-provided footage, meaning you film the video yourself and provide JoVE with the footage to edit. JoVE will not send the videographer. Please confirm that this is correct.

✓ Correct

2. Microscopy: Does your protocol require the use of a dissecting or stereomicroscope for performing a complex dissection, microinjection technique, or something similar?

NO

3. Software: Does the part of your protocol being filmed include step-by-step descriptions of software usage?

NO

4. Proposed filming date: To help JoVE process and publish your video in a timely manner, please indicate the proposed date that your group will film here:

July/8/2025

When you are ready to submit your video files, please contact our China Location Producer, [Yuan Yue](#).

Current Protocol Length

Number of Steps: 5

Number of Shots: 13

Introduction

1.1. **Yu Cui**: We study the surgical correction effect of lower eyelid Epiblepharon and trichiasis. We follow up with the patient to study detailed surgical outcomes and the prognosis of patients.

1.1.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B-roll: 2.3.1*

What advantage does your protocol offer compared to other techniques?

1.2. **Yu Cui**: In this study, the eversion suture method is combined with surgery, which has been found to reduce the recurrence rate.

1.2.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B-roll: 2.4.1*

What significant findings have you established in your field?

1.3. **Yu Cui**: In addition to excising the redundant skin and orbicularis oculi muscle, the epiblepharon correction procedure adopted fixes the orbicularis oculi muscle from the upper lip of the incision to the tarsus, increasing the adhesion between the anterior and posterior layers of the eyelid and turning the eyelashes outward.

1.3.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B-roll: 2.4.2*

Ethics Title Card

This research has been approved by the Ethics Committee at the Suzhou Eye Hospital
Affiliated to Suzhou Vocational Health College

Protocol

2. Surgical Epiblepharon and Trichiasis Correction

Demonstrator: Yu Cui

2.1. To begin, use a high-frequency electric knife to incise the skin along the predesigned incision line [1] and extend the incision to the superficial layer of the orbicularis oculi muscle [2]. Excise the predesigned crescent-shaped or L-shaped lower eyelid skin along the incision line together with the superficial layer of the orbicularis oculi muscle [3].

2.1.1. WIDE: Talent using a high-frequency electric knife to incise along the marked line on the lower eyelid.

2.1.2. Close-up of the completed incision.

2.1.3. Talent excising the crescent or L-shaped lower eyelid skin along with the superficial orbicularis oculi muscle.

2.2. Then, dissect the incision margin into the lower margin of the lower tarsus using a bipolar electrotome, taking care to avoid damaging adjacent structures and nerves [1]. Using bipolar coagulation, ensure the surgical field is free from active bleeding points to prevent postoperative hematoma and subcutaneous ecchymosis [2].

2.2.1. Talent dissecting carefully along the incision margin into the lower tarsus with a bipolar electrotome.

2.2.2. Talent applying bipolar coagulation to achieve hemostasis.

2.3. To begin internal fixation and suture, use a 6-0 (6-oh) absorbable suture to place an 8-shaped stitch incorporating the preaponeurotic fascia of the lower eyelid retractor [1] and the subcutaneous tissue adjacent to the upper margin of the incision [2]. Adjust the knot tightness to restore the eyelashes to a normal position [3-TXT]. Apply stitches with consistent spacing and appropriate tension to promote favorable wound healing [4].

2.3.1. Talent placing an “8-shaped” suture incorporating the preaponeurotic fascia of the lower eyelid retractor.

2.3.2. Talent covering the subcutaneous tissue adjacent to the upper margin of the incision.

2.3.3. Talent adjusting the knot tightness. **TXT: Ensure that the sutures do not penetrate the conjunctival surface**

2.3.4. Close-up shot showing evenly spaced stitches being applied with controlled tension.

- 2.4. Now, observe the lower eyelid margin for slight downward displacement [1], then excise any excess skin along the projection line of the upper incision following internal fixation, ensuring the remaining skin below the incision lies completely flat [2].
- 2.4.1. Talent pointing to the excess skin along the projection line.
 - 2.4.2. Talent excising the marked excess skin to flatten the area below the incision.
- 2.5. Finally, close the skin incision using a 7-0 (7-oh) non-absorbable polypropylene suture, ensuring neither the tarsus nor the lower eyelid retractors are incorporated to avoid double-eyelid plasty [1]. Align the sutures precisely so that the upper and lower lips of the incision are slightly everted to facilitate wound healing and minimize scar formation [2].
- 2.5.1. Talent placing 7-0 polypropylene sutures and closing the skin.
 - 2.5.2. Close-up shot of precise alignment of the incision lips with slight eversion.

Results

3. Results

3.1. A total of 110 eyes from 55 patients, comprising 29 boys and 26 girls with a mean age of 7.5 years, were evaluated in the study [1].

3.1.1. LAB MEDIA: Table 2. *Video editor: Highlight the mean age listed as 7.5 years.*

3.2. Of the cases, 53 were primary procedures [1] while 2 involved recurrent surgeries [2].

3.2.1. LAB MEDIA: Table 2. *Video editor: Highlight the text indicating "53 primary procedures" in 2nd row.*

3.2.2. LAB MEDIA: Table 2. *Video editor: Highlight the text showing "2 recurrent surgeries" in 2nd row.*

3.3. In terms of cosmetic satisfaction, 49.1% patients were very satisfied [1], 27.3% were satisfied [2], 20% were neutral [3], and 3.6% were dissatisfied [4].

3.3.1. LAB MEDIA: Table 2. *Video editor: Highlight the "very satisfied" group*

3.3.2. LAB MEDIA: Table 2. *Video editor: Highlight the "satisfied" group.*

3.3.3. LAB MEDIA: Table 2. *Video editor: Highlight the "neutral" group.*

3.3.4. LAB MEDIA: Table 2. *Video editor: Highlight the "dissatisfied" group.*

3.4. During the six-month follow-up, 3.6% of the patients developed recurrent eyelash-corneal contact due to inward-directed eyelashes [1], and one eye showed mild nasal entropion involving 1 to 2 eyelashes [2].

3.4.1. LAB MEDIA: Table 2. *Video editor: Highlight the box "recurrent eyelash-corneal contact".*

3.4.2. LAB MEDIA: Table 2. *Video editor: Highlight the box "nasal entropion"*

Pronunciation Guide:

1. Epiblepharon

- Pronunciation link: [HowToPronounce.com – Epiblepharon][oculofacialarts+12How To Pronounce+12YouTube+12](#)
 - IPA: /,ɛpɪˈblɛfəron/
 - Phonetic Spelling: *ep-ih-BLEF-uh-ron*
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2. Trichiasis

- Pronunciation link: [Cambridge Dictionary – trichiasis][Cambridge Dictionary+2Oxford English Dictionary+2](#)
 - IPA (US): /trɪˈkaɪ.ə.sɪs/
 - Phonetic Spelling: *tri-KY-uh-sis*
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3. Epiblepharon (Video guide)

- Pronunciation link: [YouTube – How to Pronounce Epiblepharon][Pronounce Kiwi+15YouTube+15Cambridge Dictionary+15Wikipedia+13How To Pronounce+13Synonyms+13](#)
(Audio from a native speaker can reinforce the pronunciation above.)
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4. Orbicularis oculi

- Pronunciation link: Not directly available; broken down as "orbicularis" + "oculi" using standard Latin-based medical pronunciation.
 - IPA: /ɔːrˌbɪkjʊːˈlɛərɪs ˈɒkjʊləɪ/
 - Phonetic Spelling: *or-BICK-yoo-LAY-ris OK-yoo-lye*
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5. Eversion (as in eversion suture)

- Pronunciation link: Standard English pronunciation.
 - IPA: /ɪˈvɜːʒən/
 - Phonetic Spelling: *ih-VUR-zhuhn*
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6. Preaponeurotic fascia

- Pronunciation link: Derived from “pre-aponeurotic” + “fascia” using standard conventions.
- IPA: /,priː,æpəˌnuəˈrɒtɪk ˈfæʃiə/
- Phonetic Spelling: *pree-AP-uh-noor-OT-ik FASH-ee-uh*

7. Bipolar Electrotome

- Pronunciation link: Composed from “bipolar” + “electrotome”.
- IPA: /ˌbaɪˈpɒləɪ ɪˈlektroʊtoʊm/
- Phonetic Spelling: *bye-POH-lur ih-LEK-troh-tohm*

8. Polypropylene (as in 7-0 non-absorbable polypropylene suture)

- Pronunciation link: Standard English pronunciation of the polymer name.
- IPA: /ˌpɒliˈprəpəliːn/
- Phonetic Spelling: *pol-ee-PROP-uh-leen*

9. Eyelid (used commonly)

- Pronunciation link: Standard English word.
- IPA: /ˈaɪlɪd/
- Phonetic Spelling: *EYE-lid*

10. Entropion (as in nasal entropion)

- Pronunciation link: Standard medical term.
- IPA: /ɛnˈtroʊpiən/
- Phonetic Spelling: *en-TROH-pee-ən*