Surgical experience of patients undergoing labioplasty and lip reconstruction for lip deformity

Department of Oral and Maxillofacial Surgery, Faculty of Medicine, Kindai University, Osaka, Japan

Kazuhide Matsunaga
Introduction

Lip deformity can be classified due to various causes.

It is necessary to provide appropriate treatment for lip deformity while considering cosmetic and functional outcomes.

This time,

We report our experience with 1) neoplastic, 2) posttraumatic, 3) postoperative and 4) atrophic lip deformity.
1) **Neoplastic** lip deformity
1) Neoplastic lip deformity

Patient: a 57-year male

Lip and imaging findings at initial consultation

- There was a mass measuring 17mm of the lower lip on the left side.
- The mass was limited to the vermillion part.
- T2-weighted MRI revealed a high signal.

Diagnosis: Hemangioma of the lower lip
Treatment of lip hemangioma

① Teresa et al, 2013
A mass: limited to the vermilion part
Wedge incision and labioplasty

② Nakamura et al, 2005
A mass: limited to the vermilion part, larger than 25 mm
Tumor resection and labial mucosal advancement flap

③ Chang et al, 2012
A mass: exceeding the vermilion part
2-stage resection
1st: vermilion part, 2nd: vermilio-cutaneous junction

Our case: A mass was limited to vermilion part and 17mm
① wedge incision and labioplasty
1) **Neoplastic lip deformity**

**Operative findings**

1. A spindle-sharped incision line was made around the tumor
2. The orbicular oris muscle was sutured after tumor resection
3. Immediate post-operation
1) Neoplastic lip deformity

Postoperative findings

Pre-op

1Y Post-op

Cosmetic and functional outcomes are satisfactory
2) Posttraumatic lip deformity
2) Posttraumatic lip deformity

Patient: a 44-year male

History: He injured his upper lip on the left side. The injury was sutured at another hospital on the same day.

Diagnosis: Posttraumatic contracture of the upper lip

• The left vermilion border demonstrated elevation.
Treatment of upper lip contracture

Eric et al., 1999

Posttraumatic lip demonstrated **scar** and **shortness of the lip**.

For satisfactory cosmetic outcome:
- **Removing** the scar
- **Extending** the amount of the lip

Our case was similar to findings in incomplete unilateral cleft lip patient.

Labioplasty: **Cronin’s triangular-flap**
2) Posttraumatic lip deformity

Operative findings

① Detailed design of the skin incision
② Suturing orbicular oris muscle
③ Immediate post operation
2) Posttraumatic lip deformity

Postoperative findings

Pre-op

1Y Post-op

The appearance is generally satisfactory
3) Postoperative lip deformity
3) **Postoperative lip deformity**

**Patient:** a 79-year male

**History:**
He underwent resection of oral cancer, following by reconstruction with a myocutaneous pectoralis major flap. After surgery, closing the mouth became difficult.

**Diagnosis:**
Postoperative the lower lip deformity

5 months after surgery

The flap was remarkable bulky. The lower lip demonstrated eversion.
Treatment of the everted lower lip by the bulky flap

① Fujiwara et al, 2011

Stair-step revision: Defatting of the bulky flap and local flap

Our case: for closing mouth

Modified Fujiwara’s method
3) **Postoperative lip deformity**

**Operative findings**

1. Incision line was drawn around the flap
2. Defatting in the flap
3. Bilobed flap was designed to cover the raw surface area
4. Immediate post operation
3) Postoperative lip deformity

Postoperative findings

Closing the mouth was satisfactory.
4) Atrophic lip deformity
4) **Atrophic lip deformity**

**Patient**: a 22-year female

**History**:  
She was diagnosed as progressive hemifacial atrophy at 14 years old.  
When she was 19 years old, closing the mouth gradually became difficult.

**Diagnosis**: Atrophy of the lips due to progressive hemifacial atrophy
Which should be perform reconstruction of upper or lower lip?

- With regard to lower lip, the tongue flap is appropriate. However, the tongue demonstrated atrophy, too.

We selected reconstruction of the upper lip.

① Jin et al, 2013年
With regard to upper lip atrophy,
Cross-lip vermilion flap of the lower lip on the whole region

② Henry et al, 1979年
Cross-lip vermilion flap on the unilateral region

Reconstruction of the upper lip: ② Henry’s method
4) **Atrophic lip deformity**

Operative findings

① Transverse incision was made along the vermillion border of the upper lip

② A flap was developed along the vermillion border as a longitudinal wedge

③ The flap was rotated 180° and insert into the transverse incision

④ The flap is released at 14 days postoperatively
4) **Atrophic lip deformity**

**Postoperative findings**

**Pre-op**

**2Y Post-op**

The cosmetic and lip closure were satisfactory
Conclusion

In patients with lip deformity, it is important to perform appropriate treatment according to each patient’s clinical features in order to achieve satisfactory cosmetic and functional outcomes.