



HO CHI MINH CITY UNIVERSITY MEDICAL CENTER

**COMBINED PERCUTANEOUS SCLEROTHERAPY AND PLASTIC SURGERY
FOR THE TREATMENT OF LOWER LIP VENOUS MALFORMATION**



Dr. Tran Thanh Vy

Dr. Lam Thao Cuong

Dr. Ho Tat Bang

Ho Chi Minh City University Medical Center

INTRODUCTION

Venous malformations (VMs):

- The most common congenital vascular anomaly
- Incidence rate: 1:5000–10,000
- 40% of VMs occur in the head and neck
- VMs of the lips lead to cosmetic disfigurement and physical impairments.

[1]. Boon LM, Mulliken JB, Enjolras O, Vikkula M. Glomuvenous malformation (glomangioma) and venous malformation: Distinct clinicopathologic and genetic entities. Arch Dermatol 2004;140:971–6. <https://doi.org/10.1001/archderm.140.8.971>.

[2]. Buckmiller L, Richter G, Suen. Diagnosis and management of hemangiomas and vascular malformations of the head and neck. Oral Dis 2010;16:405–18. <https://doi.org/10.1111/j.1601-0825.2010.01661.x>.

INTRODUCTION

Venous malformations of the lips



INTRODUCTION

Sclerotherapy :

- An **effective** and **safe** treatment of VMs in children.
- Sclerosing agents: **absolute ethanol**, bleomycin, polidocanol, sodium tetradecyl sulphate, bio-glue
- Absolute ethanol: denudation of the endothelial layer, protein denaturation, platelet adhesion -> vascular occlusion.

INTRODUCTION

Recommendation: Combined sclerotherapy and surgical excision

Sclerotherapy advantages:

- Low rate of recurrence
- No scarring
- Low complication rate: Bleeding, nerve damage compared to open surgery

Sclerotherapy Disadvantages:

- Remains a fibrous mass -> cosmetic problems

=>

CASE PRESENTATION 1

- A 13-month-old girl with a mass in lower lip
- Appear after birth with a dark-red peanut-sized colour
- Increased gradually in size to a big mass
- Clinical exam: no pulsation, normal temperature
- **Problems:** difficulty breastfeeding, disfigurement, negative psychological effects for children and parent

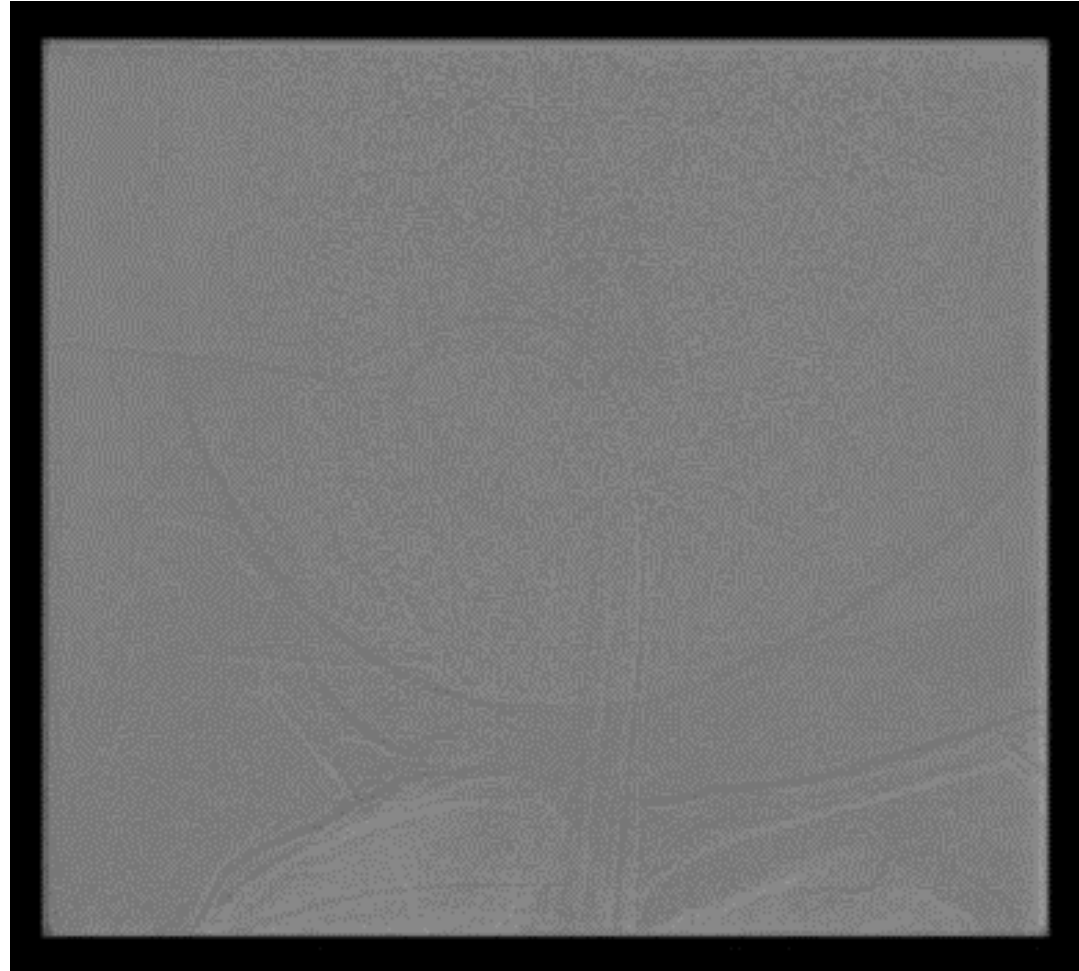


IMAGING FINDINGS

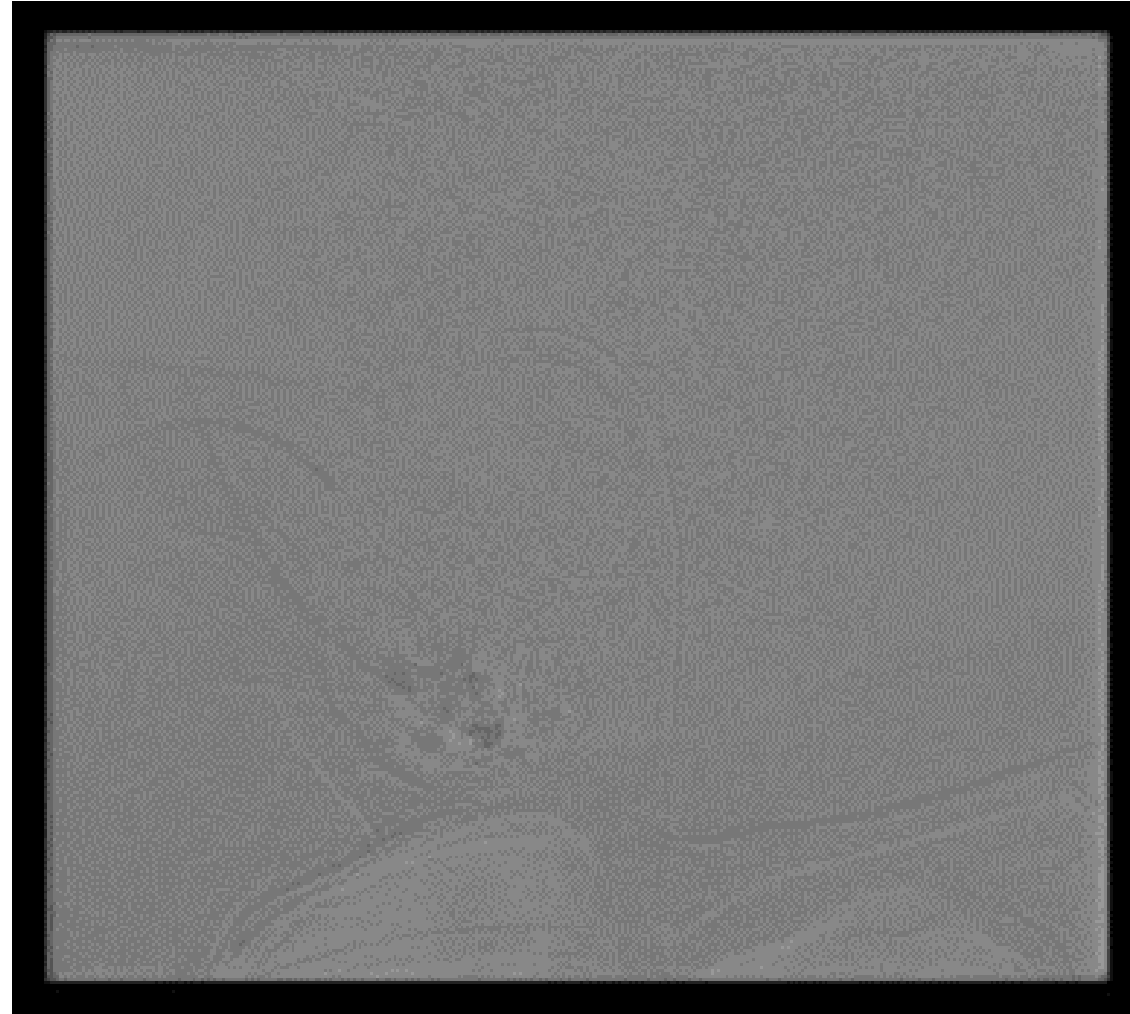


- **Doppler:** dilated, low-flow blood vessels
- **MRI:**
 - Abnormal signal in the lower lip (30x 26 x 22 mm)
 - Intermediate signal intensity on T1-weighted
 - high signal intensity on T2-weighted
 - No feeding artery

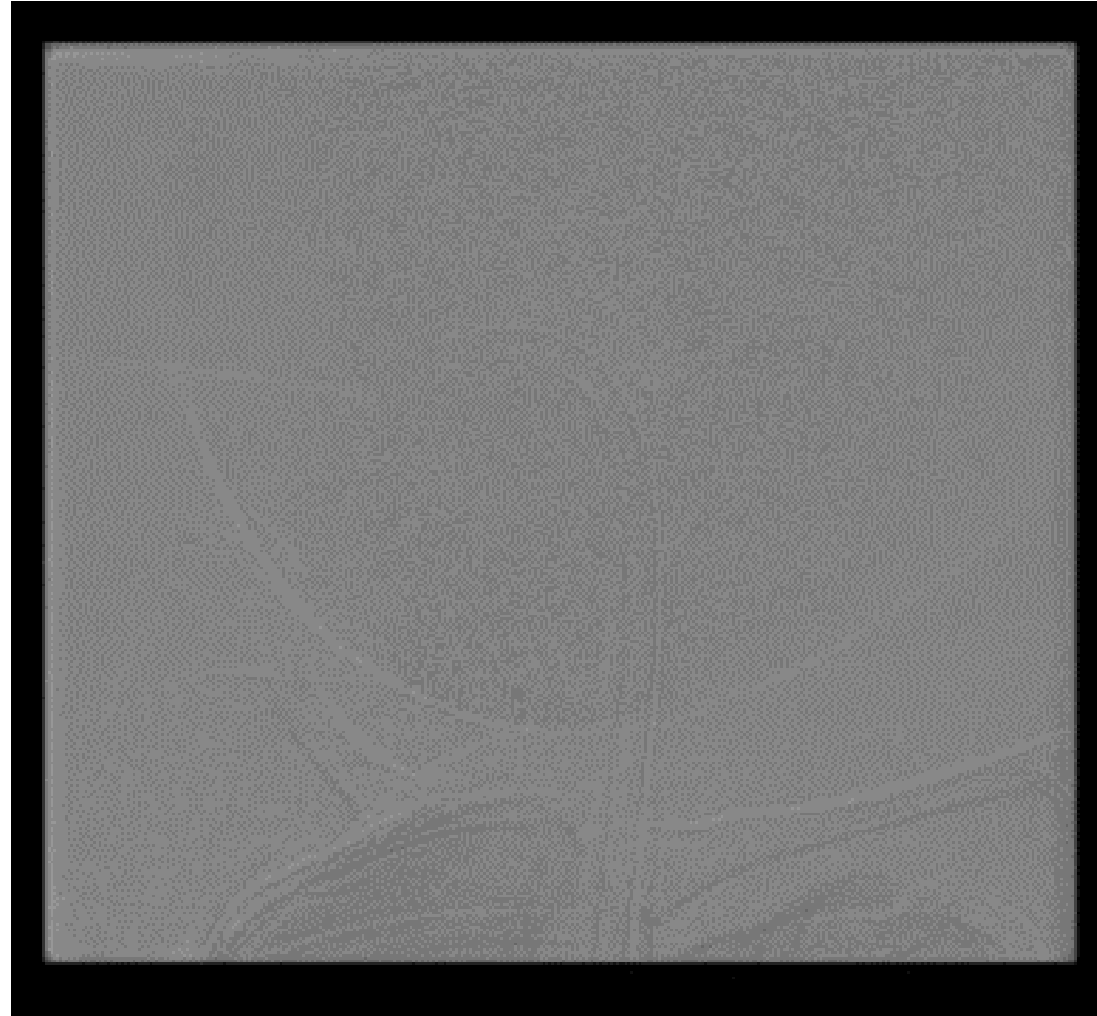
Phlebography



Injection of absolute ethanol

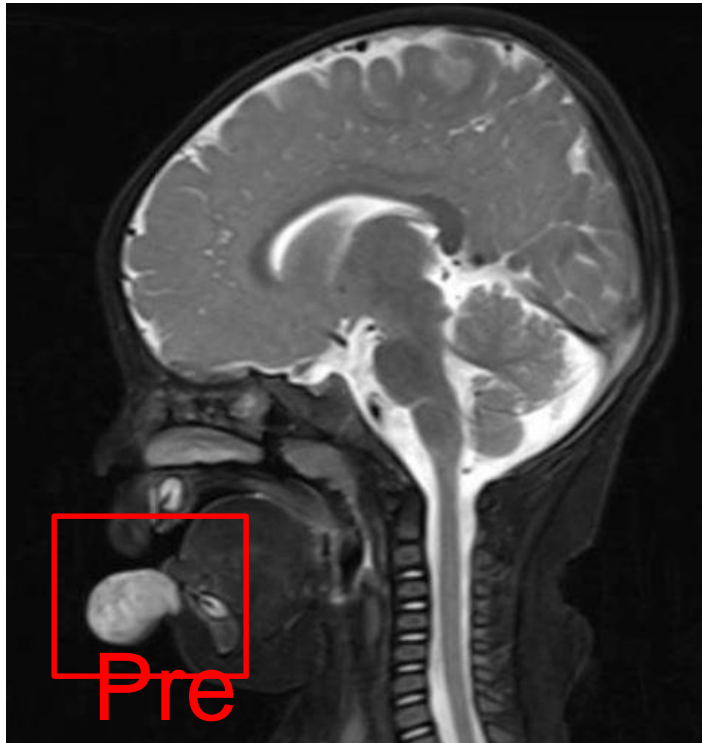


15 min of the first dose of absolute ethanol

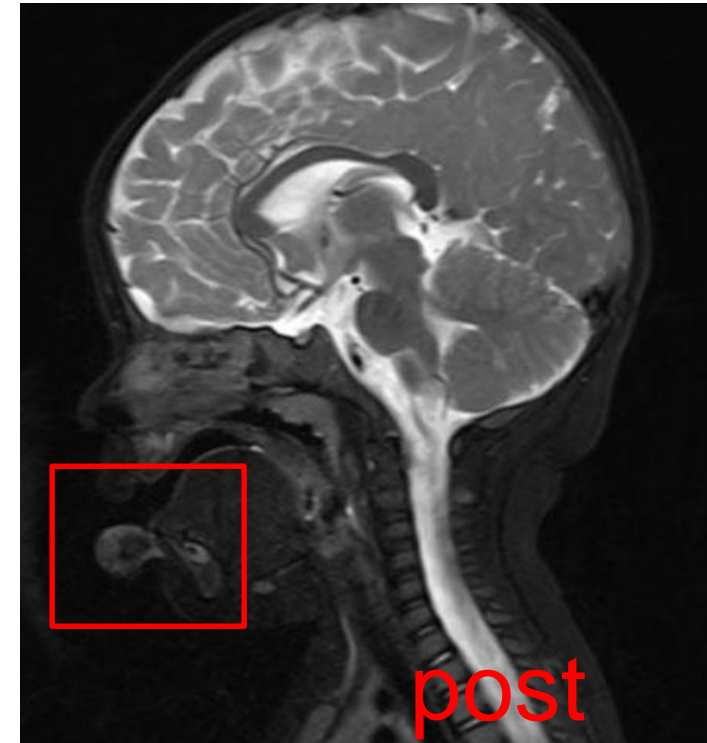


MRI findings 3 months after sclerotherapy

- The lesion had reduced by approximately 50% in volume
- No evidence on T2-weighted images



(3mo)



LOWER LIP PLASTIC SURGERY

- General anesthesia
- 3-cm incision in the vestibule
- VM had become hard, well-demarcated, and easy to dissect.
- Avoid damaging the lip mucosa
- Reshape the lower lip by Catgut 4.0



LOWER LIP PLASTIC SURGERY



Postoperative
tumor



fibrous

3 month after surgery



CASE PRESENTATION 2

- A 14-month-old boy with a mass in the lower lip



Pre- sclerotherapy



3M post-sclerotherapy

LOWER LIP PLASTIC SURGERY



3M after surgery

COMPLICATIONS

- Ethanol leakage: Skin or mucosa necrosis
- EXCESSIVE DOSE: Pulmonary embolism or pulmonary hypertension
- Safe dose: $< 1\text{mg/kg}$

DISCUSSION

Rules to avoid complications

- Ensure that absolute ethanol is injected only into the lesion -> direct ultrasound guidance support
- Pre-sclerotherapy percutaneous phlebography is recommended:
 - + Determine the classification of VM
 - + Estimate the dosage of absolute ethano

CONCLUSION

- Venous malformations of the lips always result in cosmetic and functional problems.
- A multidisciplinary approach is recommended
- Sclerotherapy was performed prior to plastic surgery to improve the efficiency and reduce excessive bleeding, which resulted in significantly improved appearance and physical function.



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HISTORY & DEVELOPMENT

OVER 20 YEARS OF HEALTHCARE DEDICATION



Polyclinic established in 1994



University Medical Center
since 2000



Opening ceremony in
2013

Thoracic and vascular department



THANK YOU SO MUCH!







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