



# Dental Treatment of the Patient with Lymphangioma under General Anesthesia

Hye-Ri Yang, Hyeon-Heon Lee, So-Yeon Bak  
Department of Pediatric Dentistry, Seoul Asan Medical Center,  
Songpa-gu, Seoul, Republic of Korea

## Introduction

Lymphangioma is a tumor-like disease in which lymphatic fluid is abnormally collected in the lymphatic system. If lymphangioma develops under the chin, it may press the airway and cause choking. Complete surgical excision is the best treatment of lymphangioma, but it is difficult because there are severe infiltrations to peripheral tissues. Non-surgical treatments such as the use of sclerosing agents, steroid or radiation therapy also can be considered. Oral lymphangioma occurs frequently on the dorsum of tongue and causes macroglossia. It makes poor oral hygiene, openbite with dry mouth and mandibular prognathism, all of which contribute to severe repeated dental caries. And if it interferes with the treatment and the airway, an outpatient dental treatment is not easy. So, this case discusses about dental treatments of the patient with lymphangioma under general anesthesia.

## Case Report

This presentation discusses a 10 year old female patient receiving periodic checkups at the department of pediatric dentistry in Seoul Asan medical center. She had lymphangiomatous face and macroglossia with poor oral hygiene. She underwent several surgeries and sclerotherapies, and current medication includes sirolimus for immunosuppression. Her oral lesions and big tongue interfered with the treatment and the airway, so she had treated all her primary teeth under general anesthesia 5 years ago.

> 5 years ago



Fig 1. pre-op PA view

Fig 2. front I/O photo

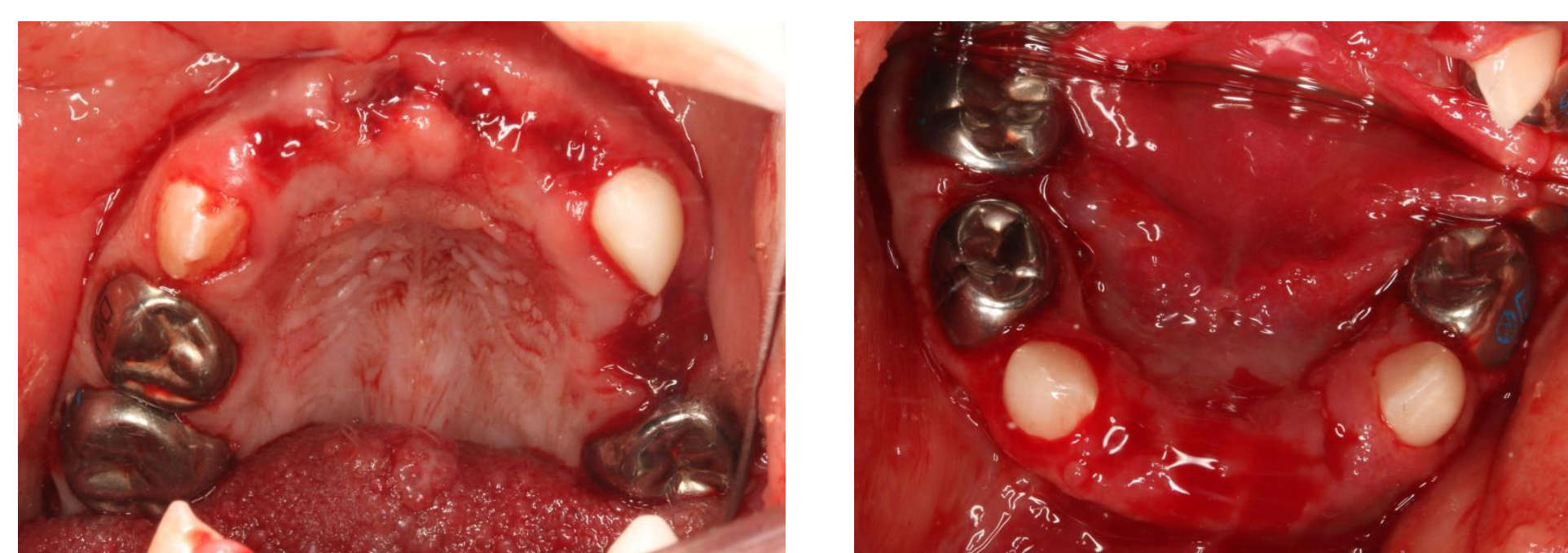


Fig 3. post-op occlusal I/O photo

> Recently (pre-op)

Recently, she felt no pain, but clinical examination and radiographic finding revealed caries at the lingual parts of permanent first molars and at the proximal parts of lower permanent incisors. Although she gained the ability to manage her own oral hygiene, she still had a large tongue, which caused food retention, dry mouth and made brushing her teeth difficult.



Fig 4. front E/O photo



Fig 5. pre-op panorama



Fig 6. lower incisors I/O photo



Fig 7. upper, lower left molars I/O photo

So, dental treatment was performed again under general anesthesia. Her all first permanent molars were restored by adult stainless steel crowns to cover all sides of teeth and lower left permanent incisors were restored by composite resin. The lower right permanent central incisor with the deepest cavity was treated by one-visit root canal treatment with resin restoration.

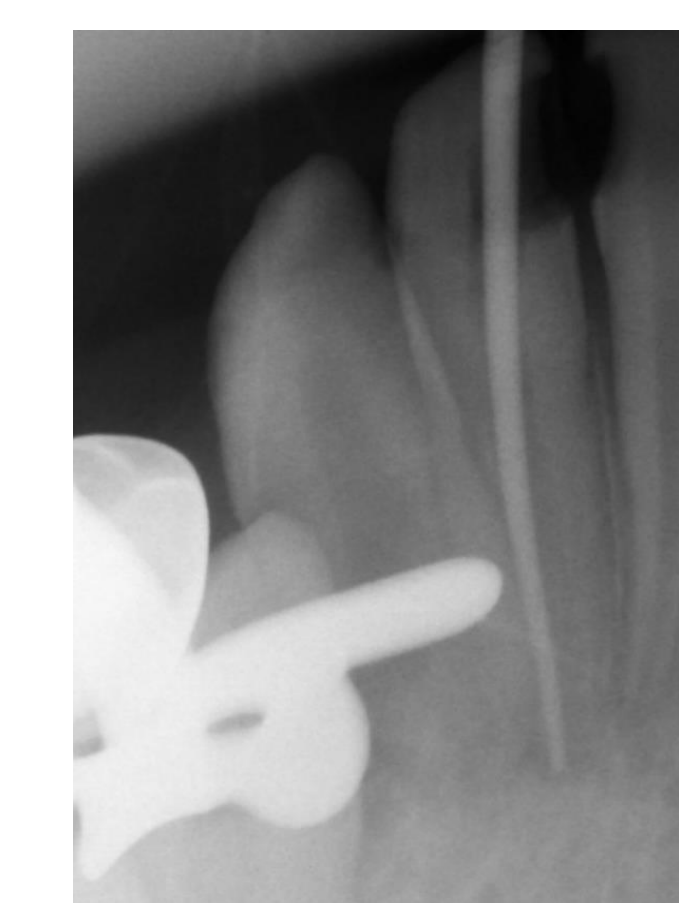


Fig 8. PA view (#41) before GP cone filling

All her primary anterior teeth were extracted and all her primary molars were restored by stainless steel crowns.

> Recently (post-op)



Fig 9. post-op panorama

Several primary molars had mobility but no problems occurred after 6 months checkup of G/A. Her oral hygiene environment has improved to some extent. We plan to conduct regular checkup every 6 months.

## Conclusion

Patients with lymphangioma have difficulty managing oral hygiene due to macroglossia which causes food retention and dry mouth. So they have high risk of dental caries and may require multiple treatments. Unlike normal patients, caries lesions often occur at the lingual parts of lower molars and the proximal parts of lower incisors.

Also, open bite and mandibular prognathism are often observed as a result of adaptation of the palate and craniofacial area to macroglossia.

Their large tongue can obstruct the sight and access to the treatment area and the airway, treatment under general anesthesia may be required. If a young patient is in the tracheostomy state, general anesthesia can be easily performed through endotracheal intubation. But that can be difficult if respiration is not secured or stenosis is occurred after tracheostomy. In addition, after the surgery, they may go into the pediatric intensive care unit (PICU), and the otorhinolaryngology emergency team may be on standby.

So patients with lymphangioma need periodic dental checkups to prevent the progression of dental caries and dentists should be careful to the patients.

## Reference

1. Farah Chouchene, Fatma Masmoudi, Ahlem Baaziz, Fethi Maatouk, Hichem Ghedira. Oral manifestations and dental care management of a young patient with lymphangioma of the tongue: A case report ; Clinical case reports, 23 July 2021
2. S. Sunil, Devi Gopakumar, and B. S. Sreenivasan. Oral lymphangioma – Case reports and review of literature ; Contemp Clin Dent. 2012 Jan-Mar; 3(1): 116–118.