

Management of Tongue Hemangioma with Sclerosing Agent - A Case Report

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Abstract: Hemangiomas are one of the most prevalent birth abnormalities in humans, which are formed from vascular tissues. 60% of instances involve the head and neck, which is the most common site. Numerous therapy options are tested, some of which are effective and others are somewhat disappointing. Among the treatment options considered are irradiation, sclerosing agents, surgical excision, cauterization, CO2 freezing, steroid medication, and watchful waiting. Hemangiomas must be treated carefully, taking into account factors including size, location, patient age, and the effectiveness of the intended approach. This case report presents the efficacy of intralesional injection of sodium tetradecyl sulphate for the management of haemangiomas

Keywords: Tongue hemangioma, Sodium Tetradecyl Sulfate, Vascular malformation, sclerotherapy

1. Introduction

Hemangiomas are generally present at birth, however they can occasionally get worse with age. They typically occur alone and present as a flat or elevated reddish blue lesion. Hemangiomas invariably involute, but at least 10–20% of cases require active treatment due to their propensity to bleed and develop ulcers¹. Although head & neck region only makes up 14% of the body's surface area, but it is where 65% of hemangiomas develop. Despite the prevalence of these tumors, the exact cause of their development remains unknown. Clinically, lesions with cavernous hemangiomas are discolored. They are ill defined soft, and blanch easily under compression².

Depending on the size, location, depth, and involvement of nearby structures, a variety of treatment techniques including surgical excision, laser therapy, cryotherapy, cauterization, radiotherapy, silver nitrate, and sclerosing solution have been utilized³. The use of sclerosing solution is the most convenient, effective and inexpensive treatment modalities especially in oral and peri-oral hemangioma lesions. I hereby present a case report of hemangioma of tongue treated successfully with 3% sodium tetradecyl sulfate injection.

2. Case Report

A 75 years old male patient reported to my Advanced Dental & Facial Surgery Centre, Guskara, West Bengal with a complaint of swellings on the dorsal surface of tongue and swallowing difficulty. The patient gave history of swelling of tongue which increase suddenly on biting and regress after few days. No history of rupture or any drainage. Patient visited to multiple specialists where he was given medication but did not get relieved. Local examination revealed a single swelling near to the tip of the dorsal surface of the tongue on the left side. Color of the swelling was bluish with pin point erythematous areas on the surface measuring 24mmx16mm. (Fig1) On palpation, swelling was pulsatile, non-tender, non-fluctuant and no blood or pus discharge. Based upon clinical examination, provisional diagnosis of Hemangioma of tongue, was given. The patient was advised for color doppler ultrasound of tongue in which internal vascular

malformation was observed that was discretely heterogenous confirming the diagnosis of Hemangioma. Patient was planned for treatment of the lesion using a sclerosing agent sodium tetradecyl sulfate. Surface anesthesia was given by 15% lidocaine spray. 3% sodium tetradecyl sulphate was injected intralesionally, first at the periphery and then into the centre of the lesion with insulin syringe. 1 ml of sodium tetradecyl sulphate was injected in one sitting. Manual compression was applied to the lesion to ensure stasis wherever it was possible. Patient complained of pain and mild local inflammatory reaction. Sclerosing agent caused tissue necrosis after 72 hrs of injection (Fig:2). For pain and necrosis patient was prescribed analgesics, anti-inflammatory and antibiotic tablet for 7 days. The lesion had entirely regressed when the patient was called back for follow-up after 28 days (Fig: 3).



Figure 1: Photograph showing swelling of the tongue



Figure 2: Necrosis of the tongue after 72 hours of sclerotherapy

Volume 12 Issue 9, September 2023

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3. Discussion

The Latin words hemangio, which means blood vessel, and oma, which means a tumor with active cell division, are combined to get the word hemangioma. The majority of hemangiomas develop a week or two week after birth. Females are up to three times as likely than males to have hemangiomas⁴. Vascular abnormalities can be divided into two main categories, according to Mulliken and Glowacki in 1982: Haemangioma and vascular abnormalities⁵. They are benign vascular tumors that have the potential to be fatal or cause severe deformity. Hemangiomas are often divided into three types: capillary, cavernous, and mixed. The mucosa, bone & muscles of the oral cavity are all impacted. Hemangioma can be easily diagnosed based on the history and clinical examination¹.

Sclerotherapy, cryotherapy, isotope irradiation, electrocoagulation, laser therapy, and surgical therapy are some of the numerous techniques used to treat hemangiomas. Sclerotherapy is a non-invasive, low-cost therapeutic option with a low risk of bleeding for management of benign vascular lesions. Sclerosing substance that is injected into or near to blood vessels results in vascular thrombosis, endothelial damage, endofibrosis, and vascular obliteration⁶. The benefits of sodium tetra decyl sulphate include the absence of discomfort, the absence of hemolysis, the reduction of hyperpigmentation, the complete regression of minor vascular lesions, and a very low incidence of allergic reactions. In their investigation, Minkow et al. employed a method that involved injecting 0.1–0.5 ml of 3% STS intralesionally into an intraoral hemangioma. All patients reported receiving satisfactory results with few negative effects⁷. Three cases of oral hemangiomas were reported by Choi BE et al., and these lesions were treated with 3% sodium tetradecylsulphate diluted with 0.9% normal saline⁸. The tongue deserves particular attention among the various sites of head and neck haemangiomas due to its vulnerability to slight trauma and subsequent bleeding and ulceration, swallowing issues, and breathing issues. The best course of action is surgical excision if the lesion is accessible for surgical intervention. However, surgery for more severe lesions can frequently result in loss of motor function, nerve injury, and significant bleeding⁵.



Figure 3: Post treatment completely healed area

4. Conclusion

I have decided to use sclerotherapy as the treatment of choice after weighing the risks and advantages of the various treatment modalities and taking into account the anatomic location, size, and development trend. For hemangioma of tongue, sclerotherapy is a very efficient, non-invasive, and affordable procedure that produces improved aesthetic results.

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