Sclerotherapy in Oral Haemangiomas: A Report of Two Cases

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ABSTRACT

Haemangioma is a benign neoplasm characterised by abnormal growth of blood vessels usually occurring in head and neck region. Sclerotherapy is a simple, safe, and effective procedure with minimal complications for treating low flow intraoral haemangiomas. This case report describes two cases of haemangiomas on right upper lip and right buccal mucosa that were treated with 3% intralesional sodium tetradecyl sulphate for four and five sessions respectively after colour Doppler ultrasound. The lesions were treated with favourable results. Sclerotherapy is effective in treating low flow haemangiomas as a minimally invasive alternative for surgical methods.

Keywords: Haemangioma; sclerotherapy; sodium tetradecyl sulphate.

INTRODUCTION

Haemangioma usually appears as flat or raised lesion of mucosa, with deep red or bluish-red colour.[1] This is the most common tumour in white infants (10-12%) and most commonly involved site is head and neck region (60%).[2] Haemangiomas are endothelial tumors exhibiting endothelial proliferation with rapid growth and gradual regression.[3] Many treatment modalities are indicated depending on location, depth, and characteristics of flow of lesion including corticosteroids, alpha-interferons, bleomycin, sclerotherapy, laser-therapy, embolisation, surgical resection and combinations of these.[4] We report two cases of haemangiomas in patients who visited Department of Oral Medicine and Radiology, BP Koirala Institute of Health Sciences.

CASE REPORT I

A 42-year-old female presented with chief complaint of a bluish dome-shaped swelling in the right upper front region of lip in the inner side for three years. It was insidious on onset, non-progressive in nature. The patient had no history of trauma, pain, or ulceration. There was some regression of the swelling in last seven months. Patient wanted treatment as she was aesthetically concerned about it.

On extraoral examination, right upper lip appeared asymmetrical in comparison to that of left and swollen involving the vermillion with normal overlying skin (Figure 1). Intraoral examination revealed a single, well-defined, localised, bluish-black dome shaped swelling with smooth normal overlying mucosa, irregular border of size approximately 1x1.5 cm^2 in right upper labial mucosa in relation to 13, 14, 15, and 16 extending from the vermillion to the labial mucosa (Figure 2). It was not associated with any discharge or bleeding. On palpation all the inspectory findings were confirmed. It was measured to be 1x1.7 cm^2, non-tender, soft in consistency, pulsatile, compressible and blanched on pressure. No lymphadenopathy was appreciated. A well-defined heterogenous

Figure 1: Extraoral photograph showing swelling

Figure 2: Initial presentation.

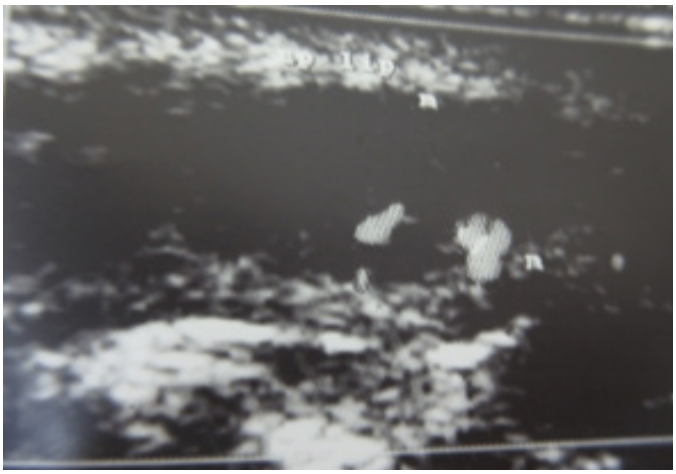

Figure 3: Ultrasonographic finding.

Figure 4: Intralesional injection with sodium tetradecyl sulphate.

Figure 5: Post treatment photograph.

Figure 6: Post treatment photograph.

predominantly hypoechoic lesion of size 11x15 mm^2 with vascularity was observed on colour Doppler and venous waveform on spectral tracing suggestive of low flow haemangioma (Figure 3).

With patient's consent intralesional sclerosing agent, 3% sodium tetradecyl sulphate (STS) was given at multiple sites after application of topical anaesthesia (Figure 4). A total of 0.6 ml of injection (STS 60mg/2ml, 1:1 dilution with local anaesthesia) was given first at the periphery and then into the centre of the lesion with insulin syringe after obtaining positive aspiration. Regression of the oral haemangioma was observed after four sessions given at weekly intervals. The affected site got healed (Figure 5, 6). Recurrence has not been reported till 13 months of follow up.

Figure 7: Pre-treatment intraoral photograph.

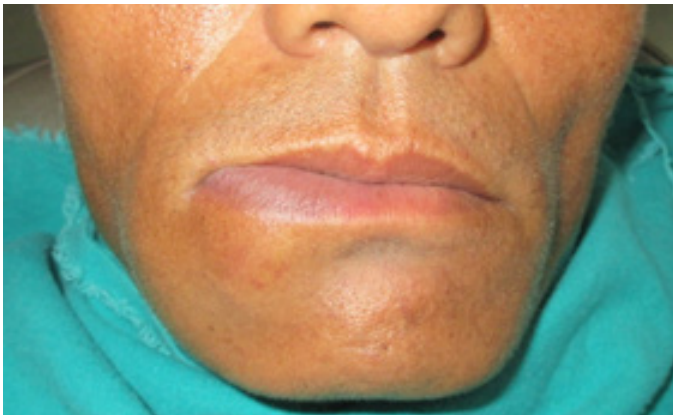

Figure 8: Pretreatment extraoral photograph.

Figure 9: Post-treatment intraoral photograph.

Figure 10: Post treatment extraoral photograph.

CASE REPORT II

A 40-year-old male presented with chief complaint of swelling on right side of cheek for 15 years. It was insidious on onset, small initially and later progressed to the present size but non-progressive at present. The patient reported no history of trauma, pain or ulceration.

On examination, swelling in the right buccal mucosa with respect to 43, 44, 45, and 46 of size approximately 6x1.5 cm^2 with normal overlying mucosa was noted (Figure 7, 8). On palpation all the inspectory findings were confirmed. It was measured to be 5x1.7 cm^2, soft in consistency, worm in bag like feeling, non-tender on palpation, compressible and had pulsations in the posterior extent of the swelling. It blanched on pressure and was not associated with any discharge, bleeding or lymphadenopathy. The investigation with Doppler ultrasonography was suggestive of low flow haemangioma.

In this case as well 0.8 ml of STS injection was given using insulin syringe after obtaining positive aspiration in a similar procedure. Regression of intraoral haemangioma was observed after five sessions. The affected sites got healed (Figure 9, 10). Recurrence has not been reported till two years of follow up.

DISCUSSION

Haemangioma is a benign tumour of dilated blood vessels.[4] As haemangioma usually regress spontaneously, it generally does not require treatment. However, it may require treatment when proliferation interferes with normal function or causes aesthetic problem and complications unlikely to resolve without treatment.[4]

There has been no consensus on the treatment of haemangiomas. Nonetheless, surgical excision is no longer the first choice since it is related with complications such as bleeding, scarring, organ and tissue dysfunction, nerve damage, and often results in residual pathology. Many nonsurgical treatments have been attempted, including corticosteroids, interferon-α, propranolol, laser therapy, embolisation, cryotherapy, radiotherapy

and intralesional sclerotherapy.[4] STS is a sclerosant which has been used widely for the treatment of low-flow vascular lesions since 1940s. This acts on a lipid molecule of endothelial cells and induces surface injury and collagen exposure, causing inflammatory reaction and organisation of thrombus, leading to fibrosis followed by shrinkage. Sclerotherapy causes maximum endothelial damage with minimal thrombus formation.[5,6] It can regress lesions partially or entirely. Furthermore, the procedure is simple, less invasive, and inexpensive. An injection of 0.5 to 2 ml per dose in lesions is recommended over period of five to seven days.[7] Sclerotherapy provides patients with advantage of receiving treatment as an outpatient. However, it should be performed with care because it can cause complications such as pain, swelling, and ulceration associated with injection site, anaphylaxis, nerve damage, increased pain, pulmonary embolism, and disseminated intravascular coagulation.[8,9] Both the patients in this case report experienced some transient pain following intralesional injections which subsided after few hours, having no further side effects.

Sclerotherapy is also effective in treating low flow vascular lesions and pyogenic granulomas.[9] It is effective when the size of lesion is small, and the growth of lesion is slow. In order to treat haemangiomas by sclerotherapy, patient selection and evaluation of patient is important.[10] Additionally, to prevent complications clinicians should have thorough knowledge about its side effects. Intralesional sclerotherapy with STS can prove to be an effective alternative to surgical treatment in treating low flow haemangiomas.

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Conflict of Interest: None

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