Hemangioma of the floor of mouth extending to the submental region: A case report
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Abstract
A non-tender, bluish in color, soft in consistency, submucosal swelling seen over the floor of the mouth may be due to varied reasons. It may be caused by neoplasm of salivary gland, inflammation or obstruction of the salivary gland or cyst, etc. Here, we report a case of a young female patient with painless, bluish swelling over the floor of the mouth with extension into the submental region with swelling seen extraorally. Clinically, it may be suspected as a plunging ranula or thyroglossal cyst on inspection. However, investigations report has confirmed the diagnosis as a case of hemangioma of floor of the mouth. The lesion was conservatively managed with sclerosing agent and good result was achieved.

Keywords: Hemangioma, intralesional injection, sclerosing agent

Introduction
Submucosal swellings in the floor of the mouth are often suspect of a disease process of the salivary glands and ranula is a common finding among them. Hemangiomas are benign tumors comprising blood vessels, common in the head and neck region. Incidence of hemangioma ranges from 1% to 12% depending on age and population studied. However, hemangiomas occurring within the oral cavity are exceedingly rare. They may occur few weeks after birth, may attain a rapid growth but undergo spontaneous resolution by the age of 6–8 years. However, in some patient, they may persist and pose a great challenge in treatment for the same. Here, we present a young female patient with an intraoral hemangioma over the floor of the mouth, extending to the submental region. The patient was treated with sodium tetradecyl sulfate (STS) injection (Setrol). The patient was follow-up and good result was achieved [Figure 1].

Case Report
A young female from Nepal, with complain of intraoral swelling for about 1½ years, reported to the outpatient department of Oral and Maxillofacial Surgery Department, King George’s Medical University, Lucknow. She was ignoring the swelling at beginning as it was initially asymptomatic. However, she started to feel concern as the swelling was increasing in size. The patient then decided to report to King George’s Medical University, Lucknow. On inspection, an intraoral swelling was seen on the floor of the mouth which seems to be extending to the submental region. Extraoral swelling can be seen on the submental region. The swelling was non-tender, soft in consistency on palpation. A provisional diagnosis could be ranula, a cyst, or hemangioma. Investigations such as fine-needle aspiration cytology and magnetic resonance imaging (MRI) were done.

MRI report is suggestive of being likely a vascular lesion, hemangioma, extending to or displacing the mylohyoid, and anterior belly of digastric muscle [Figure 2].

A conservative treatment approach was planned with an intralesional injection with inj. Setrol (STS). Injections were given as infiltration at the intralesional site extraorally at the submental swelling sites at a 2–3 weeks interval. The total number of injections given was 4 times. Also, supplementary medications , Tab. Tranexamic acid 500mg twice daily for 3 days for haemostasis control and Tab. Combiflam (ibuprofen + paracetamol) thrice daily for 5 days as anti-inflammatory agent , were given during the treatment. A case was follow-up and a good result was found with complete resolution of the swelling [Figure 3].

Results
After sclerosing agent, 3% sodium tetradecyl sulfate (Setrol) was injected intralesionally at an interval of 2–3 weeks, remarkable
result was achieved. After the fourth injection, the lesion and swelling are seen to be resolving with disappearance of the swelling. The patient was reviewed after 3 weeks and fantastic result was noted, the lesion completely disappeared and the injection was stopped [Figure 4].

Case Discussion

Hemangioma over the floor of the mouth is a rare finding. Among the most common diagnosis for swelling over the floor of the mouth are ranula or dermoid cyst or thyroglossal duct cyst for swelling over the submental region.[1] Hemangiomas though may be presented at birth invariably involute. However, at least 10–20% of cases need active intervention due to their tendency to bleed and become ulcerated.[2] Hemangioma being a benign vascular tumor may pose a life-threatening situations or may just cause temporary disfigurement.[3] They may also invade the bone, muscles, submucosal tissue, or skin. Likewise, intraoral hemangioma in the head and neck area is not frequent, but oral mucosa and skin are the most affected tissues in the oral cavity followed by the surrounding bone and muscle.[4]

Hemangioma is of mainly three types: Cavernous, capillary, or mixed type.[5] They are mainly treated by surgery, cautery, cryotherapy, radiotherapy, and sclerosing agent. However, surgical excision is the treatment of choice if the lesion is easily accessible.

STS (Setrol) is a sclerosing agent which has been used to caused obliteration of veins in the treatment of varicose vein, hemorrhoids, and hemangioma.[6] Once injected into the lesion they cause inflammation with subsequent tissue fibrosis.

Mohan and Prasad in their study of 15 patients used a technique of intralesional injection of 0.1–1 ml of 3% STS in intraoral hemangioma at the interval of 2 weeks. Satisfactory results were reported in all patients with minimum side effects and disappearance of the lesions without scarring. The number of injections varied according to the size of lesion. Agarwal used 3% STS intralesionally for treatment with successful results. Minkow used 0.1–0.5 ml of 3% STS also in oral hemangiomas. All these authors achieved a good result with judicious used of dose and number of injection [Figure 5].

Figure 1: Picture of patient before treatment with injection Setrol

Figure 2: Axial sections of magnetic resonance imaging showing a radiopaque lesion over the floor of the mouth

Figure 3: Intralesional injection of Setrol (sodium tetradecyl sulfate) given

Figure 4: Post-treatment result showing complete resolution of the lesion
Surgical intervention as a treatment modality for hemangioma can result in intraoperative bleeding, post-operative scarring, incomplete excision, recurrence, functional impairment, and surgical morbidity, whereas using sclerosing agent, as a primary treatment is an easy procedure, less expensive with less post-treatment complications.\(^{[7,8]}\)

**Conclusion**

From the above discussions, we can conclude that using sclerotherapy as a primary treatment for oral hemangioma extending to the submental region is a good option given its good result, cheap, easy, and safe procedure.

**References**


![Sodium Tetradecyl Sulphate Injection BP](image_url)