Is Caviar Disease (Sublingual Varices) Associated with Trauma?

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Dear Editor,

Sublingual varices are vascular dilatations which generally are asymptomatic, benign, localized to ventral and posterolateral tongue. The prevalance of sublingual varices depended on vessel tissue loss and elastic tissue degeneration increases in later ages. Here, a case of sublingual varicose veins developed after a tooth extraction at age 67 was presented.

Sublingual varices are usually seen after age 40 and the incidence increases by age [1]. It is thought that changes in morphology of the veins, increased arterial blood pressure, concomitant cardiovascular diseases, denture wearing might have effect on its developing [2,3]. It is clinically characterized by dilate, gyrose veins in ventral and posterolateral tongue. It is diagnosed based on clinical manifestation. Here, a 67 year old male patient without any systemic disease in whom sublingual varicose veins occured after tooth extraction was presented. Our case is important, because in the literature it is the first one to be reported as dependent to tooth extraction.

67 years old male patient applied to our clinic with complaint of sublingual swelling for last 3 months. His complaint started 2 months ago continued increasingly. Two weeks before his complaints seven molar teeth of the patient had extracted. The patient did not have any additional complaint besides lack of sense of taste. He had been taking isosorbid 5-mononitrate due to hypertension and aortic insufficiency in his medical history. The patient who has not smoked for 8 years, used to smoke 10 packages/year before.

Sublingual gyrose, partly dilated, blue – purple – black vascular lesions were observed at physical examination *(Figure 1).* There was no abnormal features at other areas of oral mucosa and derma examination.



Figure 1. Sublingual varices and venous dilatations.

A biopsy was conducted on the patient based on the prediognasis of hemangioma, lymphangioma, kaposi sarcoma, veneous lake. Benign vascular proliferation with concomitant explicit stromal edema were observed at histopathological examination of specimen taken from the lesion (*Figure 2*).



Figure 2. Benign vascular proliferation with concomitant explicit stromal edema.

Caviar tongue usually develops based on senile elastolytic degeneration at sublingual veins. It is mostly seen at the floor of the mouth near the sublingual glands where the mucosal tissue is more relaxed and translucent, and at ventrolateral tongue. This could be addressed as different names: lingual varicosities, oral phlebectasia lingue and sublingual varices. The incidence of sublingual varices changes between 16 - 70% [4,5] and it increases by age [1]. It is thought that the reason is physiological elastic fiber degeneration, loss of connective tissue and weakened walls of venous blood vessels based on aging [1,4]. Sublingual varices are mostly seen by dentists, because the ventral tongue is an area to be failed to notice during the examination. Al-Shayyab et al. reported that it is is irrelevant to gender [1,6].

There are quite a few studies researching the relationship of sublingual varices with other diseases. There are case reports and studies stating sublingual varices are related to varices on legs, portal hypertensions, cardiopulmonary diseases, hypertension, smoking, vegetarian diet and denture wearing [1,3,6,7]. We have not encountered any case in literature that occured after dental operations. Hedström et al. showed that sublingual varices were associated with smoking habit [7]. In our case, the patient used to smoke earlier, but has not smoked for last 8 years. We do not think our case is related to smoking, because our patient described suddenly onset swellings beneath the tongue. While there are studies claiming a strong relationship between cardiovascular diseases and sublingual varicosis instance [1,6], Kleinman et al. did not find any relationship between two conditions [8]. We have not encountered any data regarding sublingual varices after dental operations in the literature. We think that it might be associated with the elastic tissue damage, damage of lymphatic and vascular structures as a result of the trauma

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implied on soft tissue during tooth extraction, and actually there might be more cases than thought.

Hemangioma, lymphangioma, kaposi sarcoma, melanoma, blue rubber bleb nevus syndrome should be considered for differential diagnosis. In histopathologic examination seeing dilate veins without inflammatory changes makes the diagnosis easier. Treatment is not necessary in sublingual varices. However, surgical treatment might be a good option for the cases who are exposed trauma frequently, and the ones with cosmetic issues [9]. No treatment was applied to the patient. Follow up of the patient still goes on.

Consequently, further studies are needed in order to determine the risk factors causing sublingual varices. It is mostly failed to be noticed at routine examination, because it does not cause complication frequently, and mostly does not cause subjective complaint. However, we think that dermatologists, dentists, ear – nose – and – throat doctors should not fail to notice it during the examination, so this would be helpful to not skip any underlying systemic diseases.

References

1. Al-Shayyab MH, Baqain ZH. Sublingual varices in relation to smoking, cardiovascular diseases, denture wearing, and consuming vitamin rich foods. *Saudi Medical Journal*. 2015; **36**: 310-5.

2. Southam JC, Ettinger RL. A histologic study of sublingual varices. *Oral Surgery, Oral Medicine, Oral Pathology.* 1974; **38**: 879-86.

3. Jassar P, Jaramillo M, Nunez DA. Base of tongue varices associated with portal hypertension. *Postgraduate Medical Journal*. 2000; **76**: 576-7.

4. Miles AE. 'Sans teeth': changes in oral tissues with advancing age. *Proceedings of the Royal Society of Medicine*. 1972; **65**: 801-6.

5. Kovac-Kovacic M, Skaleric U. The prevalence of oral mucosal lesions in a population in Ljubljana, Slovenia. *Journal of Oral Pathology & Medicine*. 2000; **29**: 331-5.

6. Hedström L, Bergh H. Sublingual varices in relation to smoking and cardiovascular diseases. *British Journal of Oral and Maxillofacial Surgery*. 2010; **48**: 136-8.

7. Eddy TP, Taylor GF. Sublingual varicosities and vitamin C in elderly vegetarians. *Age Ageing*. 1977; **6**: 6-13.

8. Kleinman HZ. Lingual varicosities. Oral Surgery, Oral Medicine, Oral Pathology. 1967; 23: 546-8.

9. Viswanath V, Nair S, Chavan N, Torsekar R. Caviar tongue. *Indian Journal of Dermatology, Venereology and Leprology*. 2011; **77**: 78-9.