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Case Report

Isolated Phlebectasia Linguae: Unveiling A Rare and Fascinating Clinical Case

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Abstract

Phlebectasia Linguae, also known as Caviar tongue or Sublingual varices, are benign vascular dilatations that often go undetected and appear on the ventral aspect of the tongue. The prevalence increases with age due to senile elastotic degeneration and vessel wall weakening, affecting 10% of those over the age of 40. This syndrome is distinguished by dilation, gyrose veins in the ventral and posterolateral tongue, and purple nodular enlargement of the veins. The diagnosis is made based on the clinical presentation. More study are needed to determine the appropriate risk factors for sublingual varices. Routine checks frequently overlook this issue since it seldom results in any complications or subjective symptoms. Sublingual varices may be confused with tumors such as hemangioma, lymphangioma, Kaposi's sarcoma, melanoma, or disorders such as Osler's syndrome and blue rubber bleb nevus syndrome. Here we describe the case of a 48-year-old male patient, having Hepatitis B with a history of using tobacco who acquired sublingual varicose veins on the left ventral side of his tongue without any precedent event.

Keywords: Oral Varicose Veins; Caviar's Tongue; Sublingual Varices; Phlebectasia Linguae; Excision; Venous Malformation of Oral Cavity

Introduction

Sublingual varices (SLVs), also known as tongue varicosities, oral phlebectasia linguae, lingual varicosities, and caviar tongue, are a relatively rare finding on standard clinical examinations, particularly in those over 40 years old [1,2]. Oral varices are thought to be benign evolutionary abnormalities. Varicose veins are irregularly twisted and dilated veins. They are most frequently evident on the ventral side of the tongue, characterized by multiple tiny, irregular, blue/purple lesions with a bilateral linear distribution from the ventral aspect of the tongue to the tip. SLVs have a prevalence rate of around 22.5%, are most common in those over the age of 60, and are rare in young adult [3]. A younger inividual's vascular lesion on the tongue may suggest a congenital disorder such as Osler or Fabry syndrome [4]. Thus, healthcare professionals can benefit from learning about frequent oral disorders in older persons.

More recently, research has found link between SLV and smoking cardiovascular disease (CVD), and denture wear [5], hypertension [6,7], diabetes mellitus type 2, among the elderly [8]. We present the case of a 48-year-old male, Hepatitis B positive patient with

a history of tobacco use with sublingual varicose veins on the left ventral side of his tongue without any precedent event or other chronic comorbid condition.

Case Report

A 48 years old gentleman noticed a swelling and dilated veins over the ventral aspect of the tongue since 3 weeks and also complained about the pain on chewing food since 1 week. He was habitual tobacco chewer along with betel leaf and areca nut. He had no comorbid condition except that he was a Hepatitis B patient not on any antiviral drugs. There was no history of bleeding from the lesion. Clinical examination revealed presence of multiple, oval to rounded purplish blue colored masses with variable consistency with surrounding tortuous, dilated veins seen over the ventral aspect of tongue (Figure 1, Figure 2 and Figure 3). Oral hygiene was poor. There was no restriction of tongue movement or any abnormal intra oral findings.

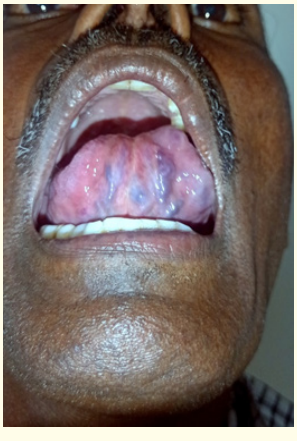

Figure 1

Figure 2

Figure 3

Patient underwent excision biopsy of the tongue lesion (Figure 4). Intraoperatively after exposure of the mucosa over the ventral aspect of tongue, multiple dilated tortuous veins were noted. All the venous channels and feeder vessels individually ligated and cut and the entire mass was excised in toto (Figure 5, Figure 6).

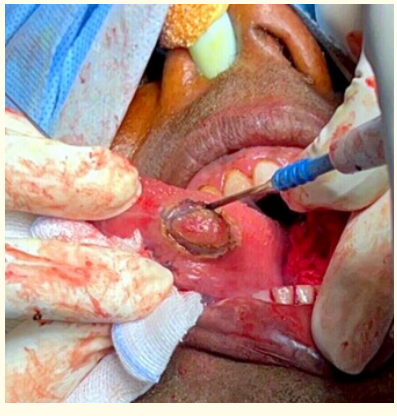

Figure 4

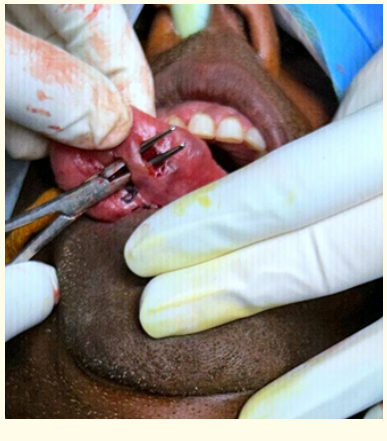

Figure 5

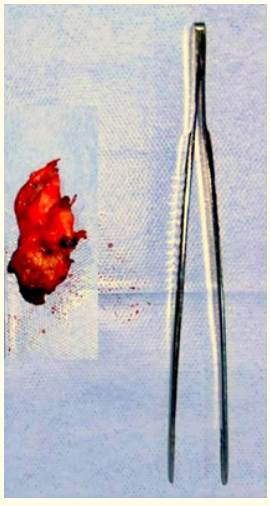

Figure 6

Histopathological (HPE) report revealed it to be a case of Phlebectasia linguae involving the ventral aspect of tongue (Figure 7).

HPE (Figure 7) showing hyperplastic stratified squamous epithelium with underlying subepithelium in the deeper portion showing few dilated thin walled blood vessels lined by single layer of endothelium seen in-between the skeletal muscle fibers. Also seen are organized thrombi with calcification.

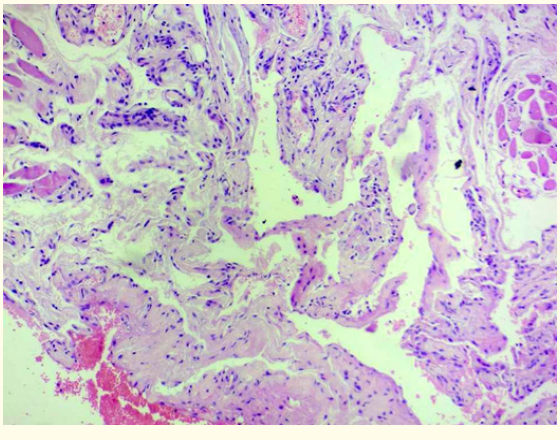

Figure 7

Discussion

Sublingual varices (SLVs), also known as tongue varicosities, oral phlebectasia linguae, lingual varicosities, or caviar tongue, are benign vascular dilatations that develop on the ventral surface of the tongue and are normally asymptomatic [9]. The incidence rises with age due to senile elastotic degeneration and vessel wall weakening, afflicting 10% of the population over the age of 40. It must be distinguished from venous malformation (congenital), hemangioma, lymphangioma, blue rubber bleb syndrome, and melanoma. The histology of Caviar tongue demonstrates a dilated vein with minimal inflammatory changes [10]. Lynge Pedersen., *et al*. found that SLVs are the most prevalent oral lesion in older persons, accounting for 28.3% of cases. Furthermore, SLVs were more prevalent in elderly people with systemic illnesses and medication usage, particularly cardiovascular disease [10]. Another research by Hedström., *et al*. found that age, hypertension, and smoking were strongly connected with SLV, but there was no association between the gender of patients with SLVs, indicating a significant relationship between gender and SLV. This variability might be attributed to cultural variances, smoking, or dietary disparities [11]. According to Al-Shayyab., *et al*. the SLV prevalence is 20.5%, with 34% of patients clueless of the lesion's existence [12].

Hypertension, type 2 diabetes, and smoking are well-established risk factors for development of acquired variant of SLV. CVD is relatively prevalent among SLV patients. Hypertension and diabetes mellitus are also significant [13]. Previous studies have identified a link between SV and hypertension. Past study has established an association between SLV and CVD [14]. The link between SV and hypertension, as well as its potential association with CVD and Type II DM is intriguing given the lack of a clear pathophysiology explanation for SV. Previous research has found a relationship between hypertension and smoking and the formation of SV, indicating that it is not just an age-related phenomenon. The link between SV and hypertension cannot be explained by increasing intravascular pressure, as higher arterial blood pressure cannot be conveyed directly to veins through the capillary bed. Additionally, veins above the heart, such as the sublingual veins, experience negative pressure [15].

The greater prevalence of CVD in SLV individuals is fascinating even if the link is weak. Further Studies are necessary to confirm these findings [16]. The connection between SLV and hypertension suggests that SLV may be a risk factor for hypertension [18]. This sign can be utilized in clinical settings to identify individuals with SLV, while further evaluation of hypertension may be needed in medical settings. Poor oral hygiene and inflammation caused by wearing a prosthesis, which resulted in denture hyperplasia and denture stomatitis, were considered to be the causes of these denture-induced lesions [17]. Young people with vascular lesions on their tongues may be associated with congenital disorders like Fabry or Osler syndrome [3].

A histological examine is not necessary for the diagnosis. A biopsy may reveal a dilated vein with a thick wall and hypoplastic endothelium, without any inflammatory lesions.

Sclerotherapy and surgery are the recommended treatment regimes. Photocoagulation using a high intensity diode or Nd-Yag laser has been employed in uncommon areas, including the buccal mucosa and lips. Because the lesions are benign, no active intervention is necessary [19].

Conclusion

Phlebectasia Linguae is a physiological manifestation that is frequently unrecognized. Physicians should avoid unnecessary evaluations into this benign and common condition in older people. Dermoscopy can help diagnose lingual varicosities. Early detection and treatment of the aforementioned medical disorders is an important aspect of basic health care. Because the presence of SLV may indicate a medical condition, the oral examination should be conducted in a methodical way. The cause of this condition is poorly studied and understood, however it may be linked to connective tissue alterations that cause venous wall fragility due to senile degeneration of elastic fibers. Finally early detection of this lesion provides unique insight into oral varicose veins, encouraging the investigation of its potential application as an indication (CVD, Hypertension, Type II DM) in health population screening.

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