Caviar tongue

Sir,
A wide spectrum of disorders affects the tongue and clinical examination provides a clue to the diagnosis. Inspection of tongue helps in identifying systemic illnesses like anemia, cyanosis, nutritional deficiencies, and localized abnormalities like lichen planus, infections and tumors. However, the undersurface of the tongue is most often missed out on inspection. Lining the undersurface of the tongue are clusters of small dilated and tortuous veins that may attain a large size, appearing round and black akin to caviar. We present a case of this physiological change called caviar tongue.[1]

A 65-year-old man was referred for asymptomatic tortuous swellings on the undersurface of the tongue which he had noticed since 1 year [Figure 1]. There was no history of bleeding from the site. On examination, dilated tortuous reddish vessels were seen along the lateral portions of undersurface of the tongue. No other mucosae and skin surface showed a similar change. He had no systemic complaints or past history of any major illnesses.

The mucosal surface of the lower portion of the tongue is extremely thin and translucent which permits ready inspection of submucosal vascular structures. Also, the supporting connective tissue framework is fragile and ill-developed so that even minor stimuli can cause dilatation and varicose changes to occur. Advancing age is a predisposing factor due to tissue loosening and elastic tissue degeneration in the vessels. The caviar lesion is thus commonly seen as a physiological change associated with senile elastotic degeneration of the sublingual veins. It occurs at three sites: under surface of tongue along the sublingual vein, floor of the mouth near ostia of the sublingual glands and along the lateral portions of the under surface of the tongue.[1] Uncommon sites are lips and buccal mucosas. It begins as a small outpouching of the veins, and the varicosities gradually elevate the overlying thin mucosa with color varying from red to purple, resembling buckshot or caviar with iridescent surface. Histologically, caviar lesion is a dilated vein with no inflammatory changes. The endothelium is hypoplastic but the wall is thick and cellular.

Sublingual varices are benign vascular dilatations, usually asymptomatic and affecting 10% of the population over the age of 40 years.[2] These are frequently observed by dentists and bleeding from these varices is uncommon.[3] In cases of bleeding, a detailed investigation should be undertaken for underlying associations. Caviar tongue can be found in association with conditions that result in increased venous pressure such as portal hypertension or superior venacava syndrome.[4] Phleboliths or thrombophlebitis may complicate this condition. An association with angiokeratoma of scrotum has also been reported.[5]

In a study by William Bean, caviar tongue was seen after fourth decade with increased frequency in sixth to seventh decade which is the same profile as that seen in cherry angiomas and venous stars. No evidence of any association with systemic diseases like pulmonary or vascular disease was found.[1] A recent study for prevalence of oral hemangioma, vascular malformation and varix in a Brazilian population revealed 65.6% prevalence of asymptomatic multiple sublingual varices with preponderance in females and Caucasians.[6]

Sublingual varices may be occasionally confused due to resemblance to tumors like hemangioma, lymphangioma, Kaposi’s sarcoma, melanoma or other conditions like Osler’s syndrome, blue rubber bleb nevus syndrome.[4] However, most of these conditions can be differentiated by a detailed history and thorough clinical evaluation. Caviar tongue on histology is just a dilated vein with no inflammatory changes. Vascular tumors like hemangioma and lymphangioma show endothelial cell proliferation and dilated lymphatics respectively, while Kaposi’s sarcoma shows tumor cells composed of vascular spaces and spindle cells on histology. Sublingual varices usually need no treatment but only reassurance regarding its benign nature.

Figure 1: Dilated tortuous vessels seen along the lateral portions of undersurface of the tongue
nature. Sclerotherapy or surgery has been attempted in single lesions and unusual locations like lips or buccal mucosae. This condition has been reported to highlight this rather interesting and benign physiological manifestation of aging process which is infrequently looked for by a dermatologist.

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### REFERENCES


**Sir,**

A 40-year-old Canadian Chinese male patient who presented with skin lesions on his head was admitted to our hospital on 22 September 2009. Thirteen years ago, an indurated papule appeared on his scalp, without pain and itch. From then on, the same papules spread peripherally, and became confluent. Similar lesions involved his nose, chest, and both lower extremities gradually. The lesions were skin colored and hairless. However, his intelligence was normal. Six years ago, he underwent skull drilling to clear subdural hematoma following brain trauma. Otherwise, he denied any other medical conditions such as chronic eczema, acne, pyoderma, psoriasis, endocrine diseases, or other tumors. The patient was the product of a non-consanguineous marriage. His mother had no history of exposure to drugs, chemical materials, or radiation during her pregnancy and lactation. There was no family history of similar illness.

The patient was well developed. The size of his head was in normal range. Scattered papules could be seen on his scalp, face [Figure 1], chest, and ankle, which were 0.1-0.5 cm in diameter, skin colored, and hard on palpation. On his head, there was a well circumscribed hairless giant tumor (15×9×0.5 cm). He was otherwise healthy. The plain CT scan of skull showed multiple calcifications in the scalp, especially the right frontal part and parietal part; the lesion hardly adhered to the skull. The other laboratory tests (including liver and renal function tests, calcium, phosphate, and parathormone level) were almost in the normal range.

Under local anesthesia, a biopsy was performed from the edge of the lesion. The histopathological examination revealed that the epidermis was normal, and bone tissue including bone cells, bony trabeculae, and fatty tissue appeared in the entire dermis. Calcification also could be seen to some extent under microscopy. Osteoma cutis was diagnosed by the histopathology, so the patient was confirmed as a case of the primary osteoma cutis.

Under local anesthesia, a 300 ml skin tissue expander was embedded beneath the normal scalp adjacent to the giant tumor. The sterile saline water of 510 ml was infused during the 62 days after initial expander insertion [Figure 2]. The giant lesion of the head was resected after the tissue expander was removed on 29 December 2009 [Figure 3].

Osteoma cutis is a rare, benign disease that was first described by Virchow in 1864. It is characterized by the formation of morphologically normal bone within the dermis or the subcutaneous tissue. There are two major classes of osteoma cutis: primary and secondary.
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