Gum hyperplasia in an elderly male

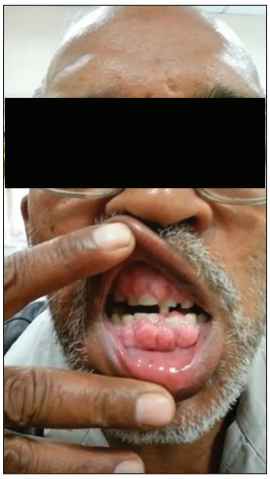
Amit Shankar Singh[1], Shivangi[2], Namit Bansal[2], Rajat Gupta[2]

From [1]Consultant, Department of Neurology, [2]Junior Resident, Department of Medicine, Fortis Hospital Mohali, Mohali, Punjab

A 50-year-old male presented in the clinic with a complaint of swelling in the gums. According to him, the patient noticed swelling in the maxillary and mandibular regions of gums both from outside and inside 15 days back. There was no history of any bleeding, infection, or discharge from gums. The patient was a known case of ischemic stroke and hypertension and was on aspirin 150 mg, atorvastatin 20 mg, and telmisartan 40 mg once daily along with baclofen 10 mg twice daily for around 3 years. One and a half months back, due to uncontrolled blood pressure, amlodipine was added. On examination, the oral hygiene of the patient was adequate. The swelling was irregular, lobulated, with a granular surface spreading over the inner aspect of teeth in the oral cavity and the outer aspect of the gingival surfaces of the teeth, almost covering the teeth completely (Fig. 1 and Video 1). The gingival hyperplasia was present throughout the gum enclosing teeth. Normally, the gingival thickness is 2–3 mm, but in this case due to hyperplasia, the thickness has increased to 7–10 mm. Furthermore, it was progressively increasing leading to some difficulty in eating and speaking. On investigating, the hematological and metabolic parameters of the patient were normal. The patient was diagnosed as a case of drug-induced gingival hyperplasia.

Gum/gingiva is the protective mucosal surface surrounding the teeth in a collar form. It is comprised of gingival epithelium and gingival connective tissue (lamina propria). Gingival connective tissue is comprised of collagen fibers, cells, and ground tissue. Adjacent teeth gingival surface is separated with gingival sulcus. In this patient, there was hypertrophy of gingival connective tissue, leading to overgrowth around the tooth both on the inner and outer surface, leading to obliteration of gingival sulcus and overall disfigurement. In view of the recent addition of amlodipine leading to the development of a sequence of events temporally, gingival hyperplasia was corroborated to amlodipine. Furthermore, all other possible causes of gum hyperplasia such as infection, poor dental hygiene, blood malignancies, and other drugs causing gum hyperplasia were ruled out by history and appropriate investigations. The patient refused any surgical intervention for gum hyperplasia; therefore, meticulous oral hygiene was advised along with the replacement of amlodipine with Losartan 50 mg twice daily with stringent blood pressure monitoring. Following this, his gum swelling slowly started regressing but did not get completely resolved until his last follow-up.

Figure 1: A 50-year-old male with gingival hyperplasia in both upper and lower gums



Video 1: A 50-year-old male with gingival hyperplasia seen in both upper and lower gums

Drugs that can cause gum hyperplasia are anti-epileptic drugs, immunosuppressants, and calcium channel blockers

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Correspondence to: Dr. Amit Shankar Singh, Consultant, Department of Neurology, Fortis Hospital Mohali, Mohali, Punjab. E-mail: amitkgmu@gmail.com

(CCB) [1,2]. Amlodipine, a CCB may rarely cause gum/gingival hyperplasia as in this patient, but the exact mechanism is unknown [3-5]. Upregulation of keratinocyte growth factor due to blockage of aldosterone synthesis in the adrenal cortex is the most accepted mechanism of gum hyperplasia by CCBs [6,7]. Stopping the offending drugs along with surgical correction is the treatment of choice and shows good results in most cases. Among CCBs, nifedipine is the most common culprit for gum hyperplasia, but in this case, amlodipine caused gum hyperplasia, and also, this occurred quite rapidly (within 15 days) and massively. As amlodipine is the most commonly used anti-hypertensive in clinical practice, therefore, it is important for clinicians to know about this adverse drug reaction and take timely action.

AUTHORS' CONTRIBUTORS

All authors made equal contribution in study design, data analysis, patient care, patient management, data acquisition, and manuscript writing.

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