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Missing diagnosis: Gingival hypertrophy due to amlodipine

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ABSTRACT

Gingival hypertrophy (GH) is a well-known physical manifestation due to inflammatory conditions, pregnancy, vitamin C deficiency, systemic diseases like leukemia, Wegner's granulomatosis, and various drugs like anticonvulsants, immunosuppressant, and calcium channel blockers (CCBs). We present here a case of a 45-year-old woman, who has been taking Amlodipine 10 mg once a day together with Atenelol 50 mg per day for one and half years, and has subsequently developed gum hypertrophy. This manifestation was reversed after stopping of Amlodipine. Though this case presentation is described in literature, we hereby present it in a pictorial form, to sensitize the treating physician toward it.

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1. Case presentation

A 45-year-old woman presented with history of gum swellings and redness for the last 6 months [Fig. 1]. On presentation her blood pressure was 140/84 mm Hg and the pulse rate was 75 min⁻¹. Her routine blood investigations were normal. Electrocardiography showed left ventricular hypertrophy. She has been taking Tablet Amlodipine 10 mg once a day together with Tablet Atenelol 50 mg per day for one and half years as prescribed by her physician. Amlodipine was stopped and the dose of Atenelol was increased to 50 mg QID. Her blood pressure was stable on this drug. Baseline investigations for secondary causes of gingival enlargement were done and



Fig. 1 – Gingival swelling and redness.

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excluded. Amlodipine was stopped and her GH reversed gradually within 4 months.

2. Discussion

Gingival hypertrophy due to drugs is termed as “drug-induced gingival overgrowth (DIGO)”.¹ Drugs that cause GH are: anticonvulsants such as phenytoin, phenobarbital, lamotrigine, valproate, vigabatrin, ethosuximide, topiramate, primidone; and calcium channel blockers such as nifedipine, amlodipine, verapamil, nifedipine and immunosuppressants like cyclosporine.

The overall prevalence of GH due to CCBs is 38%, with the prevalence of Amlodipine-induced GH being between 1.7% and 3.3%.²⁻⁴ The male:female ratio is found to be 3.3.⁴ Although the exact mechanism is not known, some investigators suggest that it may be due to inflammatory and noninflammatory causes or due to derangements in the drug metabolic pathway.⁵ If GH is left untreated, it can cause ulceration, bleeding, infection, abscess, or difficulty in chewing.

This case sheds light on the importance of early detection of these signs, so that, by instituting appropriate alternate drug treatment for hypertension, this can be reversed. As this drug is commonly used and this sign is often missed due to lack of

awareness, we are presenting this case to sensitize the treating physician toward it.

Conflicts of interest

The authors have none to declare.

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