Amlodipine-induced Gingival Hyperplasia


Abstract

Gingival hyperplasia can occur during use of drugs such as diphenylhydantoin, cyclosporine and nifedipine. We report, three cases of gingival hyperplasia induced by amlodipine, a second generation calcium channel blocker. Exact cause of induction of the hyperplasia is not known. Individual variation in metabolism of the drug may be a factor.

Amiodipine is a second generation dihydropyridine derivative calcium channel blocker. The drug is used widely for hypertension and angina pectoris. There are stray reports of gingival hyperplasia following use of amiodipine.1 Here, we report three cases of hypertension who developed gingival hyperplasia after use of amiodipine.

CASE 1

A 45 years man was on amiodipine (5 mg/day) for six months who complained of gingival hyperplasia around the left anterior, right anterior and premolar region involving both upper and lower gums. The enlarged gingiva was red, smooth and shiny. The hypertrophic area was painless and did not bleed on touch.

CASE 2

A 15 years boy was taking amiodipine (5 mg/day) for hypertension due to aortoarteritis. The boy complained of gingival overgrowth, four months after initiation of therapy (Fig. 1). There were no signs of inflammation. The patient was advised to stop the drug, two months after discontinuation, the boy showed signs of regression of the gingival hyperplasia (Fig. 2).

CASE 3

This relates to a 59 years lady who was on amiodipine (5 mg/day) for chronic stable angina for one year. The lady complained of gingival hyperplasia around the teeth in right upper incisor, canine and premolar region. There was no gingival hyperplasia in edentulous area.

There are scant reports of amiodipine-induced gingival hyperplasia, whereas there are several reports of such adverse effect induced by nifedipine,2-4 a first generation calcium channel blocker. The induction of gingival hyperplasia may not be always a class effect, because one report suggests that the gingival hyperplasia disappeared in a person who was switched over to isradipine from nifedipine.5 While the prevalence of gingival hypertrophy with nifedipine therapy has been reported to be as high as 20%,3 exact prevalence of

Fig. 1: Photograph showing gingival hyperplasia of the 15 years boy

Fig. 2: Photograph showing regression of gingival hyperplasia following amiodipine withdrawal

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amlodipine-induced gingival hyperplasia is not known. The cause of this rare adverse effect is also not known; local factors such as inflammation has been implicated, but none of our patients had any feature of inflammation. Individual ability and sensitivity to metabolise the drug may also be a factor.

Gingival hyperplasia is an adverse effect of amlodipine therapy. The hyperplasia is reversible after cessation of therapy.

REFERENCES