

Amlodipine Induced Gingival Enlargement – A Case Report

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ABSTRACT

Gingival enlargement can be caused by various factors like chronic inflammation, local factors, drug and systemic disorders. Drug induced gum hypertrophy is rarely observed. Here we report a case of 50 years old male, known case of hypertension on amlodipine since 1 year for its rarity.

Keywords: Amlodipine; Gingival enlargement.

INTRODUCTION

Gingival enlargement can be induced by various local and systemic conditions. Drug induced gingival enlargement occurring as a result of a side effect of drug used for systemic disorders, occurs in 3 to 20% cases.^[1] These common drugs include anticonvulsants (phenytoin), immune suppressants (cyclosporine), antihypertensive (amlodipine and nifedipine).^[2-4] Gingival enlargement has been described with various classes of drugs, but it is rarely reported with amlodipine. We report a case of amlodipine induced gingival enlargement in a 50 year old patient suffering from hypertension but treated with amlodipine.

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CASE-SERIES

A 50 year old male presented with gum swelling for 2 months. He was a known case of hypertension taking amlodipine since 1 year. He was a non smoker, non alcoholic and non diabetic. He had foul smell from mouth. There was no history of toothache, gum bleeding and trauma to the gums. Examination of the oral cavity revealed reddish gingival enlargement which was smooth, lobulated involving the interdental papillae with rolled margins. Oro-dental hygiene was poor. Vitals BP 130/80 mmHg, Pulse 72 beats/min. Laboratory investigations including haemogram, lipids, renal, hepatic profile, ECG and X-ray chest were normal. Rest of the systemic examination was normal. Based on history and clinical examination, a diagnosis of drug induced gingival enlargement possibly of amlodipine was made. Dental opinion was taken and he was started with conservative therapy of scaling

and root planning. He was treated with chlorhexidine mouth wash for the maintenance of oral hygiene and anti-inflammatory drugs. Amlodipine was withdrawn immediately. He was advised gingivectomy, which he refused.

DISCUSSION

Gingival enlargement is a potential source for further growth of microorganisms and is of major concern to patients and clinicians.^[4] Anticonvulsants, calcium channel blockers and immunosuppressants act by inhibiting the intracellular calcium ion influx. Calcium causes degradation and synthesis of collagen. Amlodipine, a dihydropyridine, is a calcium channel blocker used for the management of hypertension and coronary artery disease.^[1,4] Histopathological features of gum enlargement include parakeratinised stratified squamous epithelium with proliferations and elongated rete ridges. The connective tissue stroma is fibrocellular with thick bundles of collagen fibres with scattered chronic inflammatory cells.^[1,5] Amlodipine usually causes gingival hyperplasia within 2-3 months of initiation of therapy.^[5] The degree of inflammation, fibrosis and cellularity is closely associated with duration and dose of the drug.^[6] The exact pathogenesis of gingival hyperplasia is unclear, but various mechanisms include hypersensitivity to drugs, role played by inflammatory cytokines on collagenous protein, unregulation of keratinocyte growth factor, decreased calcium influx through blockage of MMP synthesis and direct toxicity of concentrated drug in crevicular gingival fluid and or bacterial plaques.^[4,7] Amlodipine induced gingival enlargement is managed by ensuring good oro-dental hygiene, withdrawal of drug and controlling gingival inflammation. Surgical intervention is indicated for esthetic and functional outcome.^[4,8]

CONCLUSION

Early recognition by taking proper history and management of such cases improves the functional outcome in drug induced gingival hyperplasia. Being rare case, it is reported here for awareness of clinicians.

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