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CASE STUDY

NON-SURGICAL MANAGEMENT OF A PATIENT WITH AMLODIPINE INDUCED GINGIVAL ENLARGEMENT: A SIX MONTHS FOLLOW UP

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ABSTRACT

Drug-induced gingival enlargement is mainly caused by three classes of drugs (1) Anticonvulsants; (2) calcium channel blockers and (3) immunosuppressants. Amlodipine is a calcium channel blocker which is used in the management of hypertension and angina. This case report presents a case of non-surgical management of a patient with amlodipine induced gingival enlargement with six months follow up.

INTRODUCTION

Out of all the cases of gingival enlargement, drug-induced gingival enlargement presents very commonly in the dental clinics. Drug-induced gingival enlargement is mainly caused by three classes of drugs (Glaude, 1990) Anticonvulsants; (Montebugnoli, *et al.*, 2000) Calcium channel blockers and (Somacarrera *et al.*, 1997). Immunosuppressants. Although nifedipine represents the calcium channel blockers group of drugs, amlodipine is also found to cause drug-induced gingival enlargement in many instances. Amlodipine is a calcium channel blocker which is used in the management of hypertension and angina. Patients with gingival enlargement usually complain of swollen gums and difficulty in chewing food etc. The main goal of periodontal treatment is to restore both function and aesthetics. This case report presents a case of non-surgical management of a patient with amlodipine induced gingival enlargement with six months follow up.

CASE REPORT

A 40 years old male reported to the Department of Periodontology, Government Dental College and Hospital, Patiala with the chief complaint of swollen gums for 2 months which was gradually increasing, painless but bled while brushing.

Patient had an episode of cerebral stroke and left side hemiplegia 6 months ago. He had undergone conservative treatment for the same and was taking amlodipine 5mg twice a day and anticoagulants from last 6 months. He was also a smoker and tobacco chewer but had quit since 6 months. There was no related family history. On general physical examination, gait of the patient was found abnormal and needed support while walking. Patient was conscious to the time, place and person with little difficulty in speech. On intra-oral examination, a generalized enlargement of gingiva involving interdental papillae and marginal gingiva was seen with marginal inflammation. The severity of gingival enlargement was more in anterior region of jaws with papillae covering the coronal portion of the teeth partially. On probing, generalized pseudopockets were found with clinical attachment loss in localized region. A diagnosis of amlodipine induced gingival enlargement was made on the basis of the clinical findings.

Treatment: Patient was explained about the condition and physician was consulted regarding substitution of the offending drug along with the consent for the dental treatment. The drug got substituted and consent was obtained. Oral hygiene instructions were given to the patient in detail prior to the treatment which included demonstrations of brushing techniques, use of interdental cleaning aids, chlorhexidine 0.2% mouth rinses twice a day.



Upper row showing pre-operative photographs at day 1; Middle row showing gingival conditions at 6 weeks of non-surgical therapy; Lower row showing photographs at 6 months of non-surgical therapy.

Scaling and root planing (SRP) was done in multiple sittings. After SRP, patient was kept under maintenance therapy with regular follow ups. Results obtained were positive for both the patient and the dentist.

DISCUSSION

As already mentioned, drug induced gingival enlargement is an unwanted adverse effect of three major group of drugs. Before undergoing any treatment in such cases, a careful medical history and proper diagnosis should be made. After diagnosing the case, a dentist should seek medical consultation regarding the substitution of the drug. Chances of recurrences are very high if the drug is not substituted. Not every patient taking amlodipine develops gingival enlargement. The degree of fibrosis and inflammation depends on the dose, duration, and type of drug; oral hygiene; individual susceptibility, including genetic factors; and environmental influences (Trackman and Kantarci 2004), (Uzel *et al* 2001). Non-surgical treatment is essential in cases where surgical treatment is not possible due to age of the patient or some systemic condition. The primary aim of non-surgical approach is to reduce the inflammation in the gingival tissues and thereby reduce the chances of surgery (Somacarrera *et al.* 1997). Gingival enlargement may regress with time in patients undergoing a vigorous oral hygiene programme (Montebugnoli *et al.* 2000). There are evidences which suggest that a combination of oral hygiene reinforcement and systemic antibiotics may be beneficial in the

management of drug induced gingival enlargement (Glaude and Snyder 1990). Management of drug induced gingival enlargement is started with the non-surgical therapy with a specific period of follow up. If the enlargement still persists, then proceed to the surgical treatment.

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