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Answer: Gingival hypertrophy secondary to calcium channel blockers

Gingival hypertrophy ranges from mild (as in the patient) to severe (Panel). Drug-induced gingival hypertrophy is usually associated with the administration of three different classes of drugs. ¹

**Anticonvulsants:** phenytoin, phenobarbitone, lamotrigine, sodium valproate, vigabatrin, ethosuximide, topiramate and primidone

**Calcium channel blockers:** nifedipine, amlopidine and verapamil

**Calcineurin inhibitor:** ciclosporin

Not all patients taking any of the listed medications will develop gingival overgrowth. Currently, the underlying pathogenesis of drug-induced gingival hypertrophy is not well understood. Similarly the effect of age, sex, and duration and dosage of the drug in the pathogenesis of gingival Hypertrophy is not clearly understood. However, it is likely to be multi-factorial including genetic predisposition, underlying inflammation and plaque retention.

In drug-induced gingival hypertrophy, cessation of the suspected drug can reverse the condition. Alternatives should be used: tacrolimus and isradipidine cause less gingival hypertrophy than ciclosporin and nifedipine respectively. ² Interestingly, nifedipine pears to have an additive effect when used together with ciclosporine in transplant recipients with hypertension.

Dental hygiene is important and patients should be referred to a dentist and/or oral medicine specialist for evaluation.

Recent observations suggests that roxithromycin, a macrolide antibiotic, may have a therapeutic role in reducing ciclosporine-induced gingival hypertrophy, owing to its inhibitory effect on transforming growth factor-beta production. Azithromycin has been also used successfully. ³

Gingivectomy with carbon dioxide or YAG laser is recommended for moderate-to-severe gingival hypertrophy that does not resolve with dose reduction of medication, proper oral hygiene, or after a short course of antibiotics. Surgical resection remains an option for patients who cannot discontinue their medications or where alternatives are not available. ³

**REFERENCES**

