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SHORT CASES IN CARDIOLOGY

Gingival hyperplasia with nifedipine

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A 57 year old man underwent coronary artery bypass surgery in 1981 and 1987, percutaneous transluminal coronary angioplasty and thrombolytic therapy to reopen an occluded saphenous vein graft to the right coronary artery on two occasions in 1993, and directional coronary atherectomy to a proximal stenosis in the same graft. He had been taking nifedipine capsules between 1982 and 1987 and from February 1993 to January 1994 when he presented with a three month history of painful, swollen, and bleeding gums. Physical examination showed pronounced inflammatory gingival hyperplasia involving several papillae on the labial side of the lower anterior teeth (figure). The bulbous gingiva were red, shiny, and bled easily. There was

periodontitis with plaque and calculus deposits. Treatment with nifedipine was stopped and he was advised to go for scaling and instructions on oral hygiene. Six months later the gingival hyperplasia had disappeared.

Although gingival hyperplasia is a well-known side effect of treatment with phenytoin, valproic acid, and cyclosporin, many physicians and cardiologists may not be aware that nifedipine,¹ diltiazem,² verapamil,³ and amlodipine⁴ have been similarly implicated.

The nodular hyperplasia occurs mainly in the labial gingiva of the lower anterior teeth, around the maxillary molars or the interdental gingiva or both. Edentulous gums are unaffected. Histological examination shows hyperplasia, epithelial acanthosis with proliferation, reticulation, and elongation of the rete pegs.

Drug induced gingival hyperplasia usually regresses after nifedipine is stopped. Regression may take a few months. Rigorous oral hygiene including scaling, gingival massage, and antiseptic washings to control plaque are thought to be an essential part of the management to prevent recurrence. Gingivectomy is sometimes required.

Severe inflammatory gingival hyperplasia causing pain, swelling, and bleeding. Plaque and calculus are also visible.

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