

INCIDENCE OF GINGIVAL OVERGROWTH INDUCED BY CALCIUM-CHANNEL BLOCKER

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BACKGROUND/AIMS: Since the incidence of gingival overgrowth induced by calcium-channel blocker remains poorly defined, the incidences of 13 calcium channel blockers were determined.

METHODS: Dental patients (n = 1,437) who received amlodipine (n = 225), barnidipine (n = 25), benidipine (n = 28), cinnarizine (n = 46), diltiazem (n = 191), flunarizine (n = 32), manidipine (n = 111), nicardipine (n = 219), nifedipine (n = 347), nilvadipine (n = 58), nisoldipine (n = 89), nitrendipine (n = 25) or velapamil (n = 41) for more than 3 months were surveyed to determine the drug-induced gingival overgrowth. Clinical diagnosis of drug-induced overgrowth was verified by disappearance or decreased severity of gingival overgrowth after withdrawal of the causative drug.

RESULTS: Gingival overgrowth was found in patients receiving amlodipine (n = 3), diltiazem (n = 8), manidipine (n = 2), nicardipine (n = 1), nifedipine (n = 27) and nisoldipine (n = 1), but not by barnidipine, benidipine, cinnarizine, flunarizine, nilvadipine, nitrendipine and velapamil. The highest incidence of gingival overgrowth was obtained by nifedipine (7.8%), followed by diltiazem (4.2%), amlodipine (1.3), manidipine (1.8%), nicardipine (0.5%) and nisoldipine (1.1%). The incidence of nifedipine-induced gingival overgrowth was significantly higher than those of diltiazem and nicardipine.

DISCUSSION/CONCLUSIONS: Gingival overgrowth induced by amlodipine, diltiazem, manidipine, nicardipine, nifedipine and nisoldipine was found in surveyed patients, of which incidence of overgrowth varied among the drugs. Calcium-channel blocker-induced gingival overgrowth, especially by nifedipine, appears more frequently and is now not a rare adverse effect.

Key words: Calcium channel blocker, Gingival overgrowth, Incidence