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| **Name:** |
| Devon Blob |
| **Group:** |
| 6A-3 |
| **Pathology Question:** |
| What are the oral manifestations of taking calcium channel blockers? |
| **Report:** |
|  Amlodipine is a long-acting calcium channel blocker used to treat patients suffering from angina and hypertension. Amlodopine-associated gingival hyperplasia is a rare event that occurs two to three months after the first administration of the drug. In this article’s analysis of other studies, only 1.3 to 3.3% of patients showed gingival hyperplasia as a side-effect. One important factor in developing gingival hyperplasia is gender. Males are three times more likely to develop this manifestation compared to females. Therefore, with how rare of a side effect this is for a female patient our goal is directed more towards meticulous maintenance than surgical treatment. Although causes vary between patients, there are two main underlying mechanisms contributing to drug-induced hyperplasia. The non-inflammatory mechanism includes “defective collagenase activity due to decreased uptake of folic acid, blockage of aldosterone synthesis in adrenal cortex, and consequent feedback increase in ACTH level, and upregulation of keratinocyte growth factor” (Aldemir). The inflammatory response results from “direct toxic effects of concentrated drug in crevicular gingival fluid and/or other bacterial plaques. This inflammation could lead to the upregulation of cytokine factors such as TGF-β1” (Aldemir). These two pathways lead to detrimental effects such as compromised esthetics, mastication and speaking issues, as well oral hygiene impairment and malnutrition.  There are several ways to manage Amlodipine-associated gingival hyperplasia including cessation of drug administration, switching to an alternative drug class to treat the primary disease, and good oral hygiene protocol for maintenance. As a last resort option, a patient could undergo gingivectomy or periodontal flap surgery. In our case, however, we will aim and encourage frequent cleanings to manage calculus build up and to frequently re-emphasize proper cleaning techniques. Through this treatment, we would ultimately hope to maintain the patients periodontal health while allowing them to remain on the medication for their primary disease.  |
| **References:** |
| <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3598305/><https://pubmed.ncbi.nlm.nih.gov/7964547/> |