題名:Expression of androgen receptor and interleukin-6 in the cells derived from nifedipine induced gingival overgrowth tissue stimulated with Porphyromonas gingivalis lipopolysaccharide and interleukin-1

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摘要:The purpose of this study was to clarify the main contributory factor of nifedipine-induced gingival overgrowth either by Porphyromonas gingivalis lipopolysaccharide (Pg-LPS) or interleukin-1beta (IL-1beta). Human gingival fibroblasts from healthy tissues and nifedipine-induced gingival overgrowth tissues were stimulated with nifedipine, IL-1beta, Escherichia coli lipopolysaccharide (Ec-LPS), and Pg-LPS, and the gene expressions were analyzed by RT-PCR. Analysis of the data showed no strong evidence of a synergistic effect of nifedipine and Pg-LPS on IL-6, connective tissue growth factor (CTGF), and type 1 collagen gene expression of either healthy cells or nifedipine-induced gingival overgrowth cells. Among the three stimulants--IL-1beta, Pg-LPS, and Ec-LPS--androgen receptor and IL-6 gene expressions in both the healthy and nifedipine-induced gingival overgrowth groups were strongly up-regulated by the presence of IL-1beta only. Furthermore, the responses to IL-1beta in the nifedipine-induced gingival overgrowth group were stronger than those of the healthy group. It can be concluded that IL-1beta is an important mediator responsible for the higher IL-6 and androgen receptor expression of nifedipine-induced gingival overgrowth cells.