Background: Curcumin has anti-inflammatory and antioxidant effects and is reported to have many biologic activities. The current study examines effect of curcumin on: 1) systemic T helper 17 (Th17) cell response; 2) gingival expressions of interleukin (IL)-17 and retinoic acid receptor-related orphan receptor (ROR) γt; and 3) alveolar bone loss (ABL) in experimental periodontitis. Methods: Thirty-eight male albino Wistar rats were divided into four groups: 1) group 1 = periodontitis; 2) group 2 = periodontitis with curcumin treatment; 3) group 3 = periodontally healthy with curcumin treatment; and 4) group 4 = periodontally healthy. Curcumin was administered via oral gavage (30 mg/kg/d) for 15 days. After sacrifice via exsanguination, the following serum levels were determined using enzyme-linked immunosorbent assay: 1) IL-1β; 2) IL-6; 3) IL-17A; 4) IL-23; and 5) transforming ...