Periodontal therapy reduces the severity of active rheumatoid arthritis in patients treated with or without tumor necrosis factor inhibitors.

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BACKGROUND: Rheumatoid arthritis (RA) and periodontitis are common chronic inflammatory conditions. Recent studies showed a beneficial effect of periodontal treatment on the severity of active RA. This study was undertaken to further examine the effect of non-surgical periodontal treatment on the signs and symptoms of RA in patients treated with or without anti-tumor necrosis factor-alpha (medications). The effect of anti-TNF-alpha therapy on periodontitis also was assessed.

METHODS: Forty participants diagnosed with moderate/severe RA (under treatment for RA) and severe periodontitis were randomly assigned to receive initial non-surgical periodontal therapy with scaling/root planing and oral hygiene instructions (n = 20) or no periodontal therapy (n = 20). To control RA, all participants had been using disease-modifying anti-rheumatic drugs, and 20 had also been using anti-TNF-alpha before randomization. Probing depth (PD), clinical attachment level (CAL), bleeding on probing (BOP), gingival index (GI), plaque index (PI), RA disease activity score 28 (DAS28), and erythrocyte sedimentation rate (ESR) were measured at baseline and 6 weeks later. Linear mixed models were used to identify significant differences between subjects who received periodontal treatment and those who did not.

RESULTS: Patients receiving periodontal treatment showed a significant decrease in the mean DAS28, ESR (P < 0.001), and serum TNF-alpha (P < 0.05). (There was no statistically significant decrease in these parameters in patients not receiving periodontal treatment. Anti-TNF-alpha therapy resulted in a significant improvement in CAL, PD, BOP, and GI. CONCLUSIONS: Non-surgical periodontal therapy had a beneficial effect on the signs and symptoms of RA, regardless of the medications used to treat this condition. Anti-TNF-alpha therapy without periodontal treatment had no significant effect on the periodontal condition.

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