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**ASSOCIATION BETWEEN RHEMATOID ARTHRITIS AND PERIODONTITIS**

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**Relevance.** Approximately 1 in every 100 people obtain rheumatoid arthritis and women are about 4 times more susceptible. The prevalence of periodontitis in Republic of Belarus has climbed up to 90% for the past 20 years and 50% of the afflicted become crippled invalids within 10 years of the disease progression. Rheumatoid arthritis (RA) is an inflammatory autoimmune disease, while periodontitis (PD) is an immunoinflammatory disease of bacterial origin, both have common and closely related risk factors. This article focuses on exploring key risk factors of both diseases, and possible mechanisms of their action.

**Goal:** to conduct literature analysis, to identify common relationship between rheumatoid arthritis and periodontitis including review of the factors and their influences in developments of both diseases.

**Materials and Methods:** Ten articles were examined linking rheumatoid Arthritis and Periodontitis. Several key aspects were considered including: epidemiological studies, mediators of inflammation, oral microbiota, antibodies involvement, mechanical and other periodontal and rheumatoid arthritis treatment, genetic factors and their expression.

**Results and Discussion:** The following risk factors may play an influential role in rheumatoid Arthritis and periodontitis including: lifelong cigarette smoking, estrogen deficiency, use of corticosteroids, stress, environmental factors, and presence of *P. gingivalis* peptidyl-arginine deiminase (PPAD). Rheumatoid arthritis patients with periodontal disease are more prone for alveolar bone loss, deep periodontal pockets, and clinical attachment loss. Both RA and PD are both diseases of inflammatory nature with host autoimmune response characterized by accumulation of leukocyte infiltrate and inductors of inflammation in various disease related locations in the body, including the synovial membrane in RA and periodontal tissues in PD.

**Conclusions:** In review of the articles it is identified that in some rheumatoid Arthritis patients there is increased incidence of periodontitis, in comparison with healthy patients, and in only few cases is the opposite true. It is suggested that active periodontitis may be a separate risk factor for patients with Rheumatoid Arthritis.