

Inflammation in the mouth and joints in rheumatoid arthritis

12 March 2015

Today at the 93rd General Session and Exhibition of the International Association for Dental Research, researcher Sheila Arvikar, Massachusetts General Hospital, Boston, USA, will present a study titled "Inflammation in the Mouth and Joints in Rheumatoid Arthritis." The IADR General Session is being held in conjunction with the 44th Annual Meeting of the American Association for Dental Research and the 39th Annual Meeting of the Canadian Association for Dental Research.

Periodontitis shares pathogenic mechanisms with [rheumatoid arthritis](#) (RA) and may trigger its onset. In this study, researchers performed joint and dental examinations, determined Porphyromonas gingivalis (*P. gingivalis*) antibodies, and examined inflammatory microenvironments in early and chronic RA patients.

Twenty-three RA patients, (15 new-onset disease, eight chronic) and 20 age/gender-matched healthy subjects (HS) without periodontitis/RA were enrolled in this study. Serum *P. gingivalis* IgG antibodies were measured by ELISA. Twenty inflammatory mediators were measured in serum, saliva, gingival crevicular fluid (GCF), and joint fluid by Luminex.

The 23 patients (87% female) received routine dental care, except for one; none currently smoked. Of the 23 RA patients, 10 had gingivitis and nine had periodontitis. RA patients exhibited increased pocket depth, clinical attachment loss, bleeding on probing and GCF volume compared with HS. Six of 23 patients had *P. gingivalis* antibodies, and all six had periodontitis.

RA [patients](#) showed a marked inflammatory profile in all microenvironments, including oral, despite routine dental care. *P. gingivalis* [antibodies](#) can be considered as biomarkers for rheumatologists in identifying those who may benefit from periodontal treatment.

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More information: This is a summary of abstract #1702 titled "Inflammation in the Mouth and Joints in Rheumatoid Arthritis," to be presented by Sheila Arvikar on Thursday, March 12, 2015, from 3:30 p.m. - 4:45 p.m. in Hall C of the Hynes Convention Center.

Provided by International & American Associations for Dental Research

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