

# 24<sup>th</sup> International Conference and Exhibition on DENTISTRY & ORAL HEALTH

April 17-19, 2017 Dubai, UAE

## Evaluation of the masticatory muscles thickness and maximal molar bite force of women with rheumatoid arthritis

Rosane de Fátima Zanirato Lizarelli, Laíse A M Rodrigues, Simone C H Regalo, Oswaldo L S Taube, Isabela H Regalo, Edson D Verri and Marcelo Palinkas  
University of São Paulo, Brazil

**S**tatement of the Problem: Rheumatoid arthritis (RA) is a chronic inflammatory rheumatic disease of unknown etiology. This research compared the thickness of the masseter and temporalis muscles and maximal molar bite force of women with rheumatoid arthritis and healthy women. Methodology & Theoretical Orientation: 28 women were divided into two groups: rheumatoid arthritis (RAG; n=14, average age  $52.28 \pm 3.00$  years) and healthy control (CG; n=14, average age  $49.42 \pm 2.45$  years). RAG presented discomfort in the preauricular region and absence of popping, clicking or grinding sounds in the temporomandibular joint. The groups were matched subject to subject (age and body mass index). This study was approved by the Ethics Committee in Research of the School of Dentistry of Ribeirão Preto, University of São Paulo. The images of the thickness of the masseter and temporalis muscles were obtained at rest and in maximal voluntary contraction using the SonoSite NanoMaxx ultrasound. The maximal right and left molar bite force was obtained using the Kratos digital dynamometer. Findings: Data of the muscle thickness and bite force were tabulated and submitted to statistical analysis (SPSS 22.0) using Student's t-test ( $P < 0.05$ ). There was no statistically significant difference between RAG and CG in the analysis of rest and in maximal voluntary contraction in muscles thickness. The values maximum molar bite force (N) was significant for right region= [(RAG=  $150.13 \pm 27.16$ ), (CG =  $225.45 \pm 19.22$ )]. Conclusion & Significance: Based on the results of this research, it can be concluded that rheumatoid arthritis in women promoted decreased of the maximum molar bite force.

### Biography

Prof. Dr. Rosane de Fátima Zanirato Lizarelli is Post-Doctoral Student in the Department of Morphology, Physiology and Basic Pathology, Ribeirão Preto Dental School, University of São Paulo. She is researcher of the Biophotonics Lab at Physics Institute of Sao Carlos-USP and Supervisory Board of Brazilian Association for Laser in Dentistry ABLO-USP. She has published more than 90 papers in reputed journals and has been serving as an editorial board member of reputed.

lizarelli@hotmail.com

### Notes: