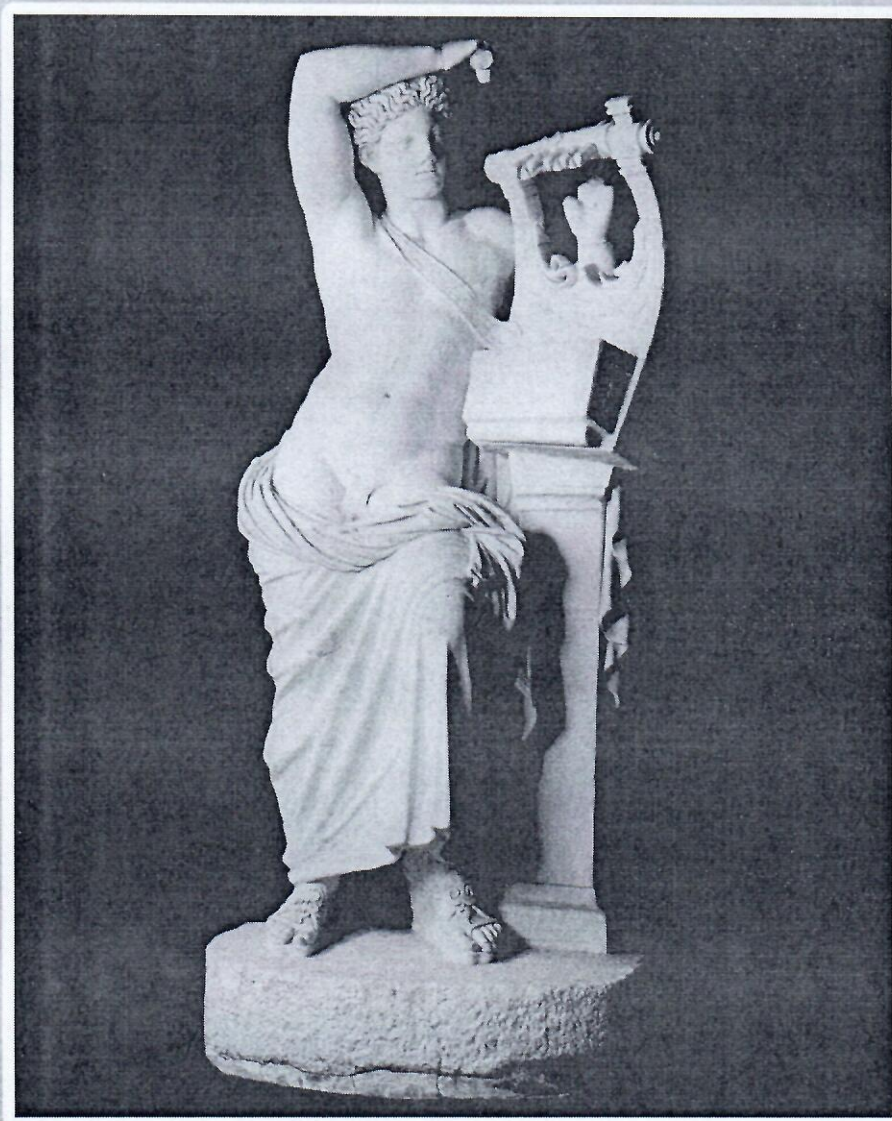


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P-026 - MOLECULAR DETECTION OF HERPES SIMPLEX VIRUS TYPE 1, HERPES SIMPLEX VIRUS TYPE 2, CYTOMEGALOVIRUS AND EPSTEIN-BARR VIRUS IN SUBGINGIVAL DENTAL PLAQUE IN PATIENTS WITH PERIODONTAL DISEASE

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Introduction: Pathogenesis and some clinical features of periodontal disease cannot be explained with bacterial etiology alone. Aim: To determine the presence of the herpes simplex virus (HSV-1 and HSV-2), cytomegalovirus (CMV), and Epstein-Barr virus (EBV) in subgingival dental plaque in patients with the periodontal disease, as well as to examine the correlation between the presence of these viruses and the level of periodontal destruction. Material and methods: Molecular analysis of the HSV-1, HSV-2, EBV and CMV was performed in a total of 89 patients with chronic periodontal disease (54 had moderate stage and 35 had advanced stage of the disease) using multiplex polymerase chain reaction (PCR). Results: In the patients with chronic periodontal disease, the most prevalent was EBV (13.5%), followed by HSV-1 found in 6.7%, HSV-2 in 3.4% and CMV found in 2.2% of patients. The molecular analysis shown presence of the viruses in 11/54 (20.4%) of the patients with moderate stage and in 15/35 (42.9%) of the patients with advanced stage of chronic periodontal disease. There was a significant difference in the presence of viruses in subgingival plaque between the patients with moderate and advanced stage of periodontal disease ($p = 0.02$). Significantly lower probability for detection of viruses in the subgingival plaque in the patients with moderate stage of the disease compared to patients with advanced stage of periodontal disease was observed ($OR = 0.34 / 0.13-0.88$). Conclusions: Our findings support the role of the herpes simplex viruses in the progression of the periodontal disease.

KEYWORDS: chronic periodontal disease, herpes simplex virus type 1, herpes simplex virus type 2, cytomegalovirus, epstein-barr virus



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Certificate of Participation

This certificate is presented to

VIOLETA ANASTASOVSKA

for acknowledgement as a participant in the **13th Balkan Congress of Human Genetics** which was held in
Edirne, Turkey on **17-20 April 2019**.

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