



Title	-D-glucosidase, -D-galactosidases, and host cells in gingival crevicular fluid from subjects with aggressive periodontitis
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0582 α -D-Glucosidase, α - β -D-Galactosidases, and Host Cells in Gingival Crevicular Fluid from Subjects with Aggressive Periodontitis

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Objectives: The aim was to study α -D-glucosidase, α - β -D-galactosidases, and host cells in gingival crevicular fluid (GCF) from subjects with aggressive periodontitis (AgP-group). **Methods:** The participants were 20 subjects and 5 healthy controls. Gingival crevicular fluid (GCF) was collected from the deepest sites, 4 sites/subject. GCF was collected in an intracrevicular washing system. The protein content was assayed by a protein-staining method. The activity of α -D-glucosidase, α - β -D-galactosidases were determined by measuring the release of 4-methylumbelliferone at 450 nm. Cell counts were performed in a Bürker chamber. Analysis of Variance (ANOVA) and regression analysis were the statistical methods used. **Results:** There were significant differences in all clinical parameters ($p < 0.05$ - $p < 0.001$) between the groups except number of remaining teeth. The number of mononuclear cells was significantly higher ($p < 0.05$) in the AgP-group compared to controls. The total protein content was in the AgP-group mean $267.1 (\pm 25.1SD)$ $\mu\text{g/ml}$ and in the controls $111.4 (\pm 29.1SD)$ ($p < 0.01$). There were statistically significant differences between AgP-group and controls in α - β -D-galactosidase activities ($p < 0.05$). In the AgP-group there was a correlation between α -D-glucosidase activity and α - β -D-galactosidase activity ($r = 0.81$, $p < 0.001$). **Conclusions:** α -D-Glycosidase and α - β -D-galactosidases in the GCF seem to react as sensitive biomarkers for subclinical changes that may later lead to clinical disease.

[Seq #67 - Diagnostics: Periodontal Pathogens](#)

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