

## ATYPICAL PHENOTYPE CAUSED BY COMPLEX CHROMOSOME REARRANGEMENT IN 5P15

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**Aim:** The aim of this study was to determine whether genetic polymorphisms on genes MMP-2 and MMP-3 involved in inflammatory response is associated with persistent apical periodontitis (PAP) after endodontic therapy in individuals with cleft lip and/or palate. **Methods and Results:** One hundred and eighty individuals were selected, divided in: GI: 34 individuals with cleft lip and/or palate, nonsyndromic, with PAP; GII: 45 individuals without cleft lip and/or palate, nonsyndromic, with PAP, GIII: control group composed of 101 individuals without cleft and without report of PAP. The inclusion criteria for PAP diagnosis considered PAI index of 4 and 5, analyzed on control periapical radiographies one year or more after treatment. Five polymorphisms were selected for genotyping, in the MMP-2 gene (rs243865, rs2285053 e rs2287074) and in the MMP-3 gene (rs679620 e rs522616). Results were analyzed on the software SDS 1.7 (Applied Biosystems) and data were tabulated on 8.0 Excel program. Comparison among genotype frequencies and alleles was performed by the qui square test and Odds Ratio with 95% confidence. **Conclusions:** Among the genetic polymorphisms evaluated in this Brazilian group, positive association was only observed between rs679620 on MMP-3 gene with cleft lip and palate and PAP only when compared with PAP group and without cleft lip and palate, and positive association was also observed on rs522616 MMP-3 gene with PAP and without cleft lip and palate, only when compared to control group.