TBX21-1993T/C polymorphism association with Th1 and Th17 response at periapex and with periapical lesions development risk

Colavite, Priscila Maria
Cavalla, Franco
Garlet, Thiago Pompermaier
Azevedo, Michelle de Campos Soriani
Melchiades, Jessica Lima
Campanelli, Ana Paula
Letra, Ariadne
Trombone, Ana Paula Favaro
Silva, Renato Menezes
Garlet, Gustavo Pompermaier

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TBX21-1993T/C (rs4794067) polymorphism increases the transcriptional activity of the Tbx21, essential for interferon gamma (IFNg) transcription, but its functional impact on development Th1- response in vivo remains unclear, as well its potential influence over inflammatory osteolytic conditions, such as periapical lesions. Therefore, this study comprises a case-control and functional investigation of Tbx21 genetic variations impact on Th1 response in vivo and in vitro, and its impact on periapical lesions risk and outcome, performed with a population of healthy controls (H; N = 283) and patients presenting periapical lesions (L; N = 188) or deep caries (DC; N = 152). TBX21-1993T/C genotyping demonstrated that the polymorphic allele C, as well TC/TC+CC genotypes, was significantly less frequent in the L patients compared to H and DC groups. Additionally, gene expression analysis demonstrates that T-cell-specific T-box transcription factor (Tbet) and I