

# miR15a and miR16 in Chilean type 1 diabetes patients: possible association with apoptosis, inflammatory, or autoimmunity markers

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© 2018, Italian Society of Endocrinology (SIE). Aim: Type 1 diabetes mellitus (T1D) is an autoimmune disease characterized by the progressive destruction of  $\beta$  cells, mediated by the interaction between T cells and several cytokines. The pathogenesis of T1D has established its possible relationship with miRNAs. In this study, we analyze the expression profile of miR-15a and miR-16 in peripheral blood mononuclear cells (PBMCs) and their possible association with apoptosis, inflammation, or autoimmunity markers. Patients and methodology: 38 T1D patients and 41 control subjects were recruited. mRNAs were analyzed by means of qPCR and TaqMan probes. PBMCs were treated with different concentrations of glucose (baseline, 11 and 25 mM) with or without an inflammatory stimulus as TNF- $\alpha$  (10 ng/ml). Results: A decrease in the levels of the miR-15a expression in basal conditions is observed in T1D patients compared to healthy control subjects (relative units 0.5 vs. 1.8,  $p < 0.05$ ). This change in