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Contribution of HLA-DBR1*03 and DRB1*04 in Genetic Susceptibily of Autoimmune Pancreatitis: Preliminary Data

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Context Autoimmune pancreatitis (AIP) is characterized by ductal and periductal inflammatory infiltration, storiform fibrosis, granulocytic-epithelial lesion, IgG4-positive plasmacells and patchy distribution. To date, AIP etiopathogenesis has not be yet elucidated; an immune-mediated pathogenesis has been postulated for AIP, mainly based on response to steroids. Lots of autoimmune diseases (Type 1 diabetes, Graves' disease, Hashimoto thyroiditis, myastenia gravis, Addison's disease, rheumathoid arthritis and systemic lupus erythematosus) are associated with HLA-DRB1*03 and -DRB1*04. A genetic predisposition has been also postulated in AIP on the basis of a strong association with HLA-DRB1*0405/DQB1*0401 haplotype in a Japanese population; any data are available on caucasian population. **Objective** The aim of this study is to confirm the role of HLA as genetic background of AIP in Italian population. **Methods** This is a multicenter, randomized, double-blind study. We enrolled 50 AIP patients (35 males; 15 females) compared with 350 healthy normal controls (176 males; 174 females). Written informed consent was mandatory. DNA typing of HLA was based on the PCR sequence–specific primers (SSP) methodology. **Results** We found a trend to significativity of HLA-DRB1*04 (OR=2.427; 95% CI=1.277-4.612; P=0.0053, Pearson; P=0.0689, Pc). Moreover, we jointly considered HLA-DBR1*03 and -DRB1*04 haplotype and we found a statistically significant association as previously demontrated in Type 1 diabetes, Graves' disease, Hashimoto thyroiditis, myastenia gravis, Addison's disease, rheumathoid arthritis and systemic lupus erythematosus (OR=18.889; P=0.00046; Fisher test). **Conclusion** A combined HLA-DBR1*03 and DRB1*04 haplotype is strongly associated with AIP in an Italian population. HLA-DRB1*04 allele may also be associated with AIP in a sample of the Italian population.