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Title: Mannose-binding lectin promoter polymorphisms and gene variants in pulmonary tuberculosis patients from Cantabria (Northern Spain)

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Body: Background: Mannose-binding lectin (MBL) is a central molecule of the innate immune system. Mannose-binding lectin 2 (MBL2) promoter polymorphisms and structural variants have been associated with susceptibility to pulmonary tuberculosis (PTB). However, contradictory results among different populations have been reported, resulting in no convincing evidence of association between MBL2 and susceptibility to tuberculosis. Objectives: To investigate the association of MBL2 promoter polymorphisms and structural variants with PTB in a well genetically conserved Spanish population (Cantabria, Northern Spain). Methods:. We analysed the six promoter and structural MBL2 gene variants in 107 patients with PTB and 441 healthy controls by using a line immuno-probe assay (LIPA). Results: Only D variant and HYPD haplotype were significantly more frequents in healthy controls which would indicate that this allele could confer protection against PTB, but this difference disappeared after statistical correction. Neither the rest of alleles nor the haplotypes were significantly associated with the disease. Conclusions: These results would indicate that MBL2 promoter polymorphisms and gene variants would not be associated with an increased risk to PTB. Despite the slight trend of the D allele and HYPD haplotype in conferring protection against PTB, susceptibility to this disease would probably be due to other genetic factors, at least in our population.