

Variant AB0 Blood Group Alleles and Risk of Pancreatic Cancer: Results from the PANDoRA Consortium

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Context Several early studies reported an association between AB0 blood type and pancreatic cancer risk. A genome-wide association study (GWAS) recently reported association between SNPs at the *ABO* locus and pancreatic cancer risk. **Objective** We attempted to replicate and expand the association with the *locus* in a series of PDAC and healthy controls of European ancestry within the PANcreatic Disease ReseArch (PANDoRA) consortium. **Methods** We genotyped 6 functional SNPs enabling the prediction the AB0 blood groups in 1,028 PDAC cases and 2,252 controls from the PANDoRA consortium. We tested each SNP and the predicted blood type for association with PDAC

risk and also assessed whether the risk SNPs and blood types have an impact on survival of the patients. **Results** We replicated the association reported in the GWAS with rs505922 (OR=1.18; 95% CI: 1.001-1.39; P=0.048). We also confirmed the associations with blood group A (OR=1.24; 95% CI: 1.04-1.48; P=0.015), and in particular with subgroup A1. We do not find association with blood groups B and AB. We did not find any statistically significant association between SNPs in *ABO* or blood group and survival or different staging of cancer. **Conclusion** *ABO* alleles corresponding to increased glycosyltransferase activity were associated with increased pancreatic cancer risk.