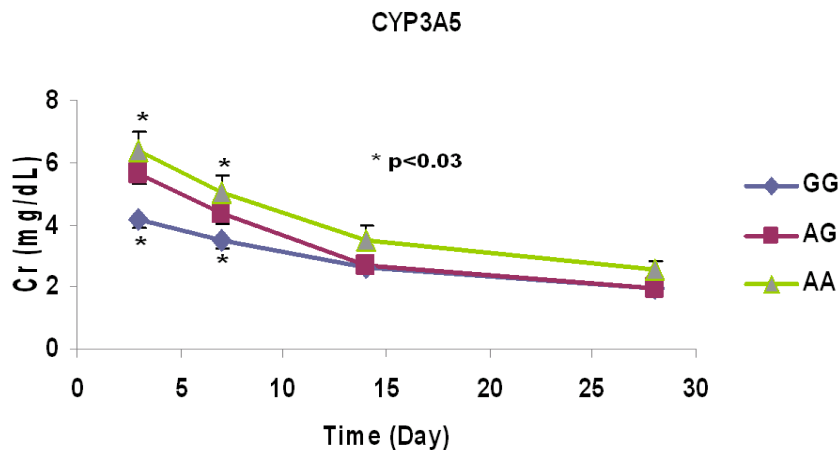


Polymorphisms of CYP3A5 and ABCB1 and early renal function after kidney transplantation

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The disposition of calcineurin inhibitors, cyclosporine or tacrolimus is mainly determined by CYP3A and ABCB1. CYP3A5 and ABCB1 are known to express polymorphically. Polymorphisms of CYP3A5 and ABCB1 may be associated with early renal function due to these drugs' immunosuppressive effects and nephrotoxicity. **Objectives:** This study aims to determine the association of CYP3A5(A6986G) and ABCB1 exon 12 (C1236T), exon26(C3435T) with early renal function in 318 kidney transplant patients. **Methods:** DNA from 345 kidney allograft recipients (living donor:129, deceased donor: 216) were determined by polymerize chain reaction for allele frequency of three genotypes and creatinine concentrations were collected on day 3, 7, 14 and 28 after transplantation. The data were analyzed by ANOVA with Tukey correction and p value \leq 0.05 was considered to be significant. **Results:** Of 318 patients, CYP3A5 allele frequencies were AA 46 (14.5%), AG 119 (37.4%) and GG (48.1%). The genotypes of CYP3A5 and creatinine concentration were depicted as follows:



None of ABCB1 exon 12 and exon 26 was significantly associated with early renal function measured by serum creatinine after kidney transplantation.

Conclusion: CYP3A5 polymorphisms may be associated with early recovery of renal function after kidney transplantation. However, there were no differences in creatinine concentration among ABCB1 exon 12 and exon 26 genotypes.