New challenges and promises in solid organ transplantation pharmacogenetics: the genetic variability of proteins involved in the pharmacodynamics of immunosuppressive drugs

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PHARMACOGENOMICS
Volumen: 17
Número: 3
Páginas: 277-296
DOI: 10.2217/pgs.15.169
Fecha de publicación: 2016

Resumen
Interindividual variability in immunosuppressive drug responses might be partly explained by genetic variants in proteins involved in the immune response or associated with IS pharmacodynamics. On a general basis, the pharmacogenetics of drug target proteins is less known and understood than that of proteins involved in drug disposition pathways. The aim of this review is to facilitate research related to the pharmacodynamics of the main immunosuppressive drugs used in solid organ transplantation. We elaborated a quality of evidence grading system based on a literature review and identified 'highly recommended', 'recommended' or 'potential' candidates for further research. It is likely that a number of additional rare variants might further explain drug response phenotypes in transplantation, and particularly the most severe ones. The advent of next-generation sequencing will help to identify those variants.

Palabras clave
Palabras clave de autor: calcineurin; gene polymorphism; inosine monophosphate dehydrogenase; mammalian target of Rapamycin; personalized medicine; pharmacology
KeyWords Plus: SINGLE NUCLEOTIDE POLYMORPHISMS; VENTRICULAR SEPTAL-DEFECT; TYPE-2 DIABETES-MELLITUS;GENOME-WIDE ASSOCIATION; BREAST-CANCER RISK; T-CELL DEVELOPMENT; ACUTE REJECTION; MYCOPHENOLATE-MOFETIL; RENAL-TRANSPLANTATION; CHINESE POPULATION

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