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
Ver información de revista

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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Financiación

Entidad financiadora	Número de concesión
Astellas	
Novartis	
Roche	

Ver texto de financiación

Editorial

FUTURE MEDICINE LTD, UNITEC HOUSE, 3RD FLOOR, 2 ALBERT PLACE, FINCHLEY CENTRAL, LONDON, N3 1QB, ENGLAND

Categorías / Clasificación

Áreas de investigación: Pharmacology & Pharmacy

Categorías de Web of Science: Pharmacology & Pharmacy

Información del documento

Tipo de documento: Review

Idioma: English

Número de acceso: WOS:000368939100010

ID de PubMed: 26799749

ISSN: 1462-2416

eISSN: 1744-8042

Información de la revista

- **Impact Factor:** Journal Citation Reports®

Otra información

Número IDS: DC0WR

Referencias citadas en la Colección principal de Web of Science: 128