

ASN 37th Annual Meeting & Scientific Exposition

Filename: 553262

Presenting Author: Bertram L Kasiske

Department/Institution: Chronic Disease Research Group

Address: 914 South Eighth Street, Suite D-253

City/State/Zip/Country: Minneapolis, Minnesota, 55404, United States

Phone: 612-337-8986 **Fax:** 612-347-7781 **E-mail:** nas@nephrology.org **Member Number:** 00006608

Potential Conflict of Interest: Yes,
Grants/Research Support: Bristol-Myers Squibb
Scientific Advisor: Bristol-Myers Squibb

Abstract Category: 903 Transplantation: Immunosuppression, Outcomes and Epidemiology

Entities that provided funding for this abstract:
Pharmaceutical Company Support
Private Foundation Support

Keywords:
Cardiovascular Events; Post-Transplant; Outcomes

Title: Donor Kidneys Expected to have Reduced Function Increase the Risk for Acute Myocardial Infarction after Kidney Transplantation.

Bertram L Kasiske, MD* ¹, Jon J Snyder, MS ¹, David T Gilbertson, PhD ¹, Saurabh Ray ² and J R Maclean, MD ². ¹ Chronic Disease Research Group, Minneapolis Medical Research Foundation, Minneapolis, MN, United States and ² Bristol-Myers Squibb, Princeton, NJ, United States

Since reduced kidney function is an independent risk factor for cardiovascular disease in the general population, we reasoned that using kidneys expected to have reduced allograft function would increase the risk for acute myocardial infarction (AMI) after kidney transplantation (KTX). We examined the incidence of AMI during the first 36 months after KTX among 35,765 Medicare patients, 1995-2001, in the US. AMIs were identified by Medicare claims, ESRD death notification forms, or UNOS cause of death. Relative risk was determined using Cox proportional hazards analysis. We also compared risk after KTX with risk on the waiting list for 46,106 patients with Medicare as the primary payer. The cumulative incidence of AMI was 1.7%, 3.3% and 6.3% at 1, 12 and 36 months after KTX. The adjusted relative risk (RR with 95% CI) for AMI for recipients from donors aged 35-49 years was 1.16 (1.02-1.33) p=0.0249, for donor age 50-64 years RR = 1.22 (1.06-1.41) p=0.0064, and for donor age 65+ years RR = 1.28 (1.01-1.61) p=0.0388, compared to donor age 18-34 years (reference=1.00). The adjusted RR for AMI in recipients of deceased donor kidneys was 1.16 (1.03-1.27) p=0.0142, compared to recipients of living donor kidneys. In a separate analysis comparing the risk of AMI after KTX with the risk on the waiting list, the risk for AMI after deceased donor KTX was not different from the risk while on the waiting list, RR = 0.97 (0.88-1.06) p=0.4693, while the risk after living donor KTX was reduced compared to the risk of AMI while on the waiting list, RR = 0.78 (0.60-0.97) p=0.0006. Kidneys expected to have reduced function after KTX, e.g. kidneys from deceased donors and kidneys from older donors, impart an increased risk for AMI after KTX. This risk increment is great enough in the case of deceased donor recipients to make the risk for AMI after KTX similar to that for patients on the waiting list. This information may be particularly pertinent for potential transplant candidates who are already at high risk for AMI.