Identifying donors with no recovery of kidney function

van Londen, Marco; van der Weijden, Jessica; de Borst, Martin H

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research question was to determine the instantaneous risk of AKI, then a Cox regression model with consideration of time-varying covariates, immortal bias, and competing risk would be important, as pointed out by Jamme and Geri.[1]

DISCLOSURE

KDJ servers as a consultant for Astex Pharmaceuticals and Natera. All the other authors declared no competing interests.

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Jia H. Ng[1], Jamie S. Hirsch[1,2,3], Kenar D. Jhaveri[1] and Steven Fishbane[1]

[1]Division of Kidney Diseases and Hypertension, Department of Medicine, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Great Neck, New York, USA; [2]Institute of Health Innovations and Outcomes Research, Feinstein Institutes for Medical Research, Manhasset, New York, USA; and [3]Department of Information Services, Northwell Health, New Hyde Park, New York

Correspondence: *Jia H. Ng, Division of Kidney Diseases and Hypertension, Donald and Barbara Zucker School of Medicine, Northwell Health, Great Neck, New York 11021, USA. E-mail: Jng10@northwell.edu*

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To the editor: In the previous issue of *Kidney International*, Lam *et al.*[1] and Kasiske *et al.*[2] present an interesting study on the long-term follow-up of kidney donors. Their results are in line with data from our cohort of living kidney donors in The Netherlands: an initial recovery and a subsequent slow decline in kidney function after 9 to 10 years. Although the results at the group level are encouraging, it should be noted that most donors have a very low lifetime risk of end-stage kidney disease. On the other hand, there is a non-negligible subgroup of donors with an earlier and more pronounced decline in kidney function, requiring more intensive follow-up. In a previous publication, we demonstrated that estimated glomerular filtration rate alone may not be able to identify donors with a declining measured glomerular filtration rate,[3] as displayed below in 398 donors from our center (Figure 1). In 13% of donors (red dots in Figure 1) estimated glomerular filtration rate increased in the first 5 years after donation, whereas measured glomerular filtration rate decreased. Other risk factors as hypertension, albuminuria,[4] and possibly metabolic factors as suggested by Kasiske *et al.* may help to identify these donors at risk. Donors without initial recovery in kidney function, reflecting reduced renal functional reserve, should probably receive more intensive

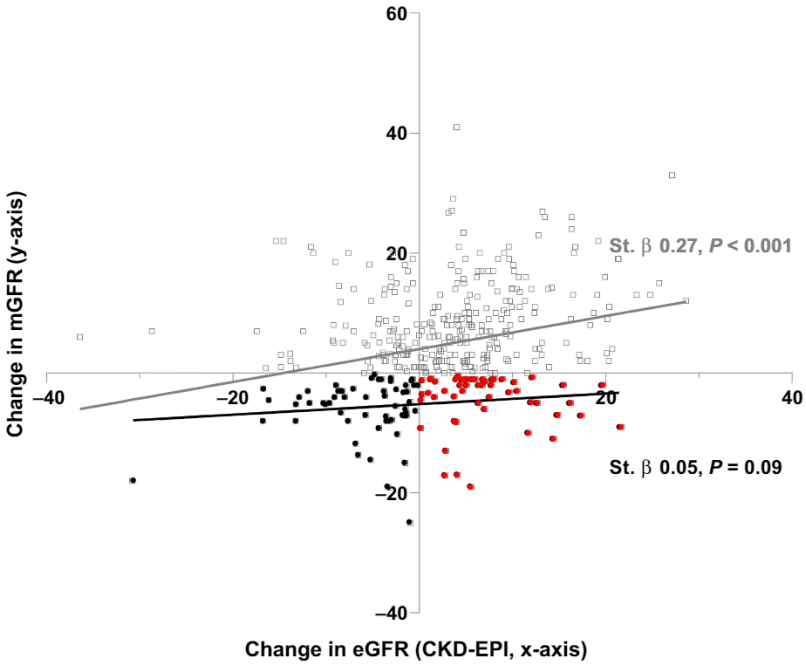

Figure 1 | Change in estimated glomerular filtration rate (eGFR) and measured glomerular filtration rate (mGFR) in 398 kidney donors between 3 months and 5 years after donation. Changes in eGFR between 3 months and 5 years after donation are strongly associated with changes in mGFR (standardized β [St. β] 0.27, $P < 0.001$; gray line). The association disappears in donors with a declining mGFR (N = 100 of 398, 25%; St. β 0.05, $P = 0.09$; black line). A considerable part of donors with a declining mGFR even have an increasing eGFR (red circles, N = 53, 13% of all donors). CKD-EPI, Chronic Kidney Disease Epidemiology Collaboration.

follow-up. More research is necessary to better characterize these donors.

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Marco van Londen[1], Jessica van der Weijden[1] and Martin H. de Borst[1]

[1]*Department of Internal Medicine, Division of Nephrology, University Medical Center Groningen and University of Groningen, Groningen, The Netherlands*

Correspondence: *Marco van Londen, Department of Internal Medicine, Division of Nephrology, University of Groningen, University Medical Center Groningen, P.O. Box 30.001, 9700 RB Groningen, The Netherlands. E-mail: m.van.londen@umcg.nl*

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"Green/apple-green birefringence": unfit for purpose?

To the editor: Like most people working on amyloid, Colombat *et al.*[1] report that Congo red–stained amyloid shows "green birefringence" or "apple-green birefringence," although their figures (5b, 6b, 7b, and 7d–f) show various colors, and in at least two (7e and 7f), green is difficult to see. We wrote to *Kidney International* in 2012 to point out a similar discrepancy between so-called "apple-green birefringence" and multiple colors in an image.[2]

The Nomenclature Committee of the International Society of Amyloidosis gave up "green birefringence" in 2014, preferring "green, yellow or orange birefringence," although "yellow-green birefringence" appeared in 2018.[3] When even this prestigious body is uncertain what colors are seen, there is little surprise that most workers stick automatically with "green (or apple-green) birefringence," despite its demonstrable unsuitability. Why are other colors not mentioned? Is it really amyloid if no green is seen?

How "green (or apple-green) birefringence" became firmly established is a story of ignorance and misunderstanding of the physical optics of Congo red–stained amyloid, and of widespread acceptance of dogmatic assertions that are disproved by everyday experience.[4] We have explained how green is seen on its own only in perfect conditions of polarizing microscopy, how mixtures of colors are usually seen, which could cover the spectrum from blue to orange, may not include green, could include white or red, and can change, and how the best expression is to say that Congo red–stained amyloid between polarizer and analyzer shows anomalous colors, meaning colors different from the red of Congo red in ordinary illumination.[2–4]

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Alexander J. Howie[1] and Mared P. Owen-Casey[2]

[1]*Department of Pathology, University College London, London, UK; and* [2]*Department of Cellular Pathology, Betsi Cadwaladr University Health Board, North Wales, UK*

Correspondence: *Alexander J. Howie, Department of Histopathology, Birmingham Children's Hospital, Birmingham B4 6NH, UK. E-mail: a.j.howie@ucl.ac.uk*

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Age-adapted definition of chronic kidney disease based on Chronic Kidney Disease Epidemiology Collaboration and full age spectrum equation

To the editor: We read with interest the recent study by Jonsson *et al.*[1] that reported the effect of age-adapted estimated glomerular filtration rate thresholds on the prevalence of chronic kidney disease (CKD) in Iceland from 2008 to 2016. A call for age-adapted estimated glomerular filtration rate thresholds has recently been proposed,[2,3] but its potential influence on CKD prevalence estimates has rarely been explored. Meanwhile, the full age spectrum equation has recently been developed and showed improved accuracy, especially in older adults.[4] The use of the full age spectrum equation in age-adapted thresholds has not been reported.[2]

We included 13,892 participants from the population-based National Health and Nutrition Examination Survey (NHANES) from 2009 to 2014. The median age was 46 years (interquartile range, 32–60), and 48.79% were male. The recommended NHANES weights and data on biological variability were incorporated to estimate the persistence of reduced estimated glomerular filtration rate or increased albumin creatine ratio, by a published multiple imputation approach[5] (Supplementary Methods and Supplementary Tables S1–S3). The overall CKD prevalence was lower under age-adapted criteria (6.09%; 95% confidence interval [CI],