Review: Healthy kidney donors may have a long-term increase in blood pressure beyond that associated with normal aging


Clinical impact ratings: Cardiology ★★★☆☆☆ Nephrology ★★★★★☆☆☆☆☆

Organ donation is the only surgery performed in routine clinical practice that is not for the patient’s own physical well-being. The ethical justifications for living kidney donation are altruism and donor psychological benefit. Therefore, proper informed consent and a low risk–benefit ratio are critical. Because of the limited supply of cadaver kidneys in the United States, the number of living kidney donors has surpassed the number of deceased donors in recent years.

This well-conducted meta-analysis by Boudville and colleagues is the best summary to date to quantify a single adverse outcome after living kidney donation—increased BP. The results are biologically plausible and vividly illustrate the critical role that kidneys play in determining long-term BP (1). These data should inform the current controversies about accepting kidney donation from “altruistic strangers” or those who have such “isolated medical abnormalities” as hypertension or proteinuria (2).

The authors reported that a 5-mm Hg increase in diastolic BP has been associated with a 1.5-fold increase in death from ischemic heart disease and stroke. Recent data showed that this degree of BP elevation is also associated with a similar magnitude increase in risk for end-stage renal disease (3). Kidney donors should have routine follow-up assessment of BP (as well as glomerular filtration rate and proteinuria). The threshold to initiate medications that block the renin–angiotensin system should be set low.

References