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Session : KJTF Symposium 2 (Kidney/Pancreas)

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Session Title : Old age in kidney transplantation

Safety and Use of Kidneys from Elderly Living Donors

Masahiko Yazawa

St Marianna University School of Medicine, Japan

To overcome the shortage of deceased donors, elderly may be evaluated for living kidney donors (LKDs) to meet the demand. Although most clinical guidelines have not defined an upper age limit for LKDs.

- BTS/RA Living Donor Kidney Transplantation Guideline 2018 (British Transplant Society)

“Old age alone is not an absolute contraindication to donation, but the medical work-up of older donors must be particularly rigorous to ensure they are suitable”

- Evaluation and Care of Living Kidney Donors (KDIGO clinical practice guideline)

The guideline has made no direct mention of an upper age limit for LKDs.

- Living Kidney Donor Guideline 2014 (The Japanese Society for Clinical Renal Transplantation)

LKDs aged 70–80 are defined as “marginal donors”; and thus, LKDs aged ≤ 80 years are recognized to be acceptable candidates. The average age of living kidney donors (LKDs) and recipients is increasing in Japan as well as worldwide; it has increased from 54 years in 2001 to 57 years in 2010 and 59 years in 2020. The most prevalent donors are in their 60s, accounting for 35% of all LKDs. This trend can be explained by the increase in spousal donor relationships from 10% to 45% over the last 20 years. Based on these trends, the average age of most LKDs will be 60–70 years in the future.

- The most prevalent LKDs were aged 35-49 in the U.S.A in 2014. LKDs aged ≥ 65 years accounted for only 3% in the same year.
- In one institution in Germany, LKDs aged ≥ 65 years accounted for 11% in 2011-2016.

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In terms of the safety of LKDs, the main concerns are perioperative complications, unexpected remnant kidney dysfunction, cardiovascular disease, end-stage kidney disease, and diminished quality of life after donation. These are especially concerning among elderly LKDs as they have several comorbidities such as hypertension, decreased kidney function, and frailty before donation.

- However, earlier studies have demonstrated the safety of donations from LKDs aged ≥ 60 or 65 years.
- If elderly donors develop diabetes after donation, they will not reach advanced kidney dysfunction because of the limited life expectancy. Therefore, unlike younger LKDs, elderly donors will have their lifetime ESRD risk would be very low with current screening protocols regarding proteinuria and diabetes.
- We previously evaluated the health-related QOL (HRQOL) of LKDs after donation. HRQOL in elderly LKDs (>60 years old) was comparable with that in younger LKDs.
- The epoch-making study regarding the long-term safety of LKDs written by Mjoen G, et al. in *Kidney Int.* 2014 excluded elderly LKDs (aged >70 years old). We are not sure the exact long-term safety after donation, especially in elderly LKDs (aged >70 years old) thus far.

We will present cases of elderly LKDs aged ≥ 70 years at our institution and discuss the safety and use of elderly LKDs.