

# Quality of life after kidney donation

Sommerer C<sup>1</sup>, Dikow R<sup>1</sup>, Heinold S<sup>1</sup>, Schaier M<sup>1</sup>, Morath C<sup>1</sup>, Schwenger V<sup>1</sup>, Schweitzer J<sup>2</sup>, Zeier M<sup>1</sup>

Nephrology<sup>1</sup> and Medical Psychology<sup>2</sup>, University Hospital Heidelberg, Germany

## Background

Living renal transplantation represents a favourable alternative to deceased renal transplantation with excellent recipient and allograft survival results. In Germany, percentages of living donation are about 28% of all renal transplantations. The Renal Transplant Center of the University Hospital in Heidelberg is one of the most important German living renal donation centers with about 40% living renal donation. Until now, only limited data about short- and longterm quality of life and psycho-social consequences for the living donor are available.

## Patients and Method

In an open, prospective observational study renal allograft donors were evaluated concerning renal function, quality of life and psycho-social results after living donation. Standardized questionnaires (ZERSSEN Symptome Score, SF-12) as well as additional specific questions related to living donation were used.

## Results

Altogether, 128 kidney donors were evaluated (46 male, age  $52.7 \pm 11.4$  years, mean time after transplantation  $3.7 \pm 3.8$ ). None of the donors had any serious post-transplant complications and the renal function was stable.

Most of the patients were satisfied with their present living condition; 18 donors were unsatisfied (Fig. 1); four donors complaint about negative familial outcome results (Fig.2).

In 13 donors quality of life was worse after donation (Fig. 3); and 13 patients stated that their discomforts were caused by renal donation (Fig. 4). Mean Zerssen Symptom score of the donors was  $9.6 \pm 4.9$  (min 0, max 56) compared to  $14.3 \pm 10.8$  in a healthy population (Fig. 5).

In 8 patients (6.3%) the Zerssen score was above the cut-off of 27 (5 female), and in another 6 patients the Zerssen Score was between 22 and 27 (Fig. 6). Mean age of the eight patients with a Zerssen Score above 27 was  $49.2 \pm 9.1$  years, mean time after donation was  $3.5 \pm 2.1$  years, 6/8 patients were married, 80% were employed, and 3/8 donors reported a migration background. Medical problems of the recipients were indicated by 3 of these 8 donors. Most complaints were about back pains and sleeplessness.

Three patients denied the question if they would be willing to donate again; and three patients were uncertain about this decision (Fig. 7).

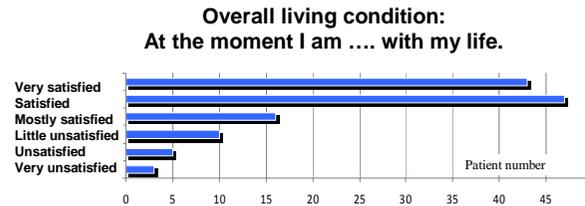


Fig. 1. Life satisfaction in kidney donors after donation.



Fig. 2. Social changes after living donation (employment, familial life).

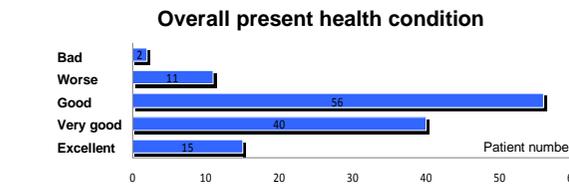


Fig. 3. Health condition after renal donation by self-evaluation.

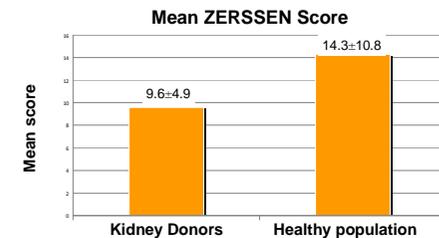


Fig. 5. Mean ZERSSEN Score in living kidney donors in comparison to a healthy population.

## Physical symptoms and discomforts in association with living kidney donation

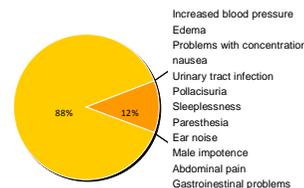


Fig. 4. Physical symptoms and discomforts after donation.

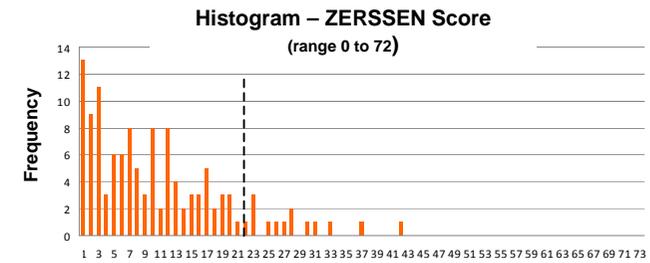


Fig. 6. Distribution of ZERSSEN Score in living kidney donors.

## Would you donate again?

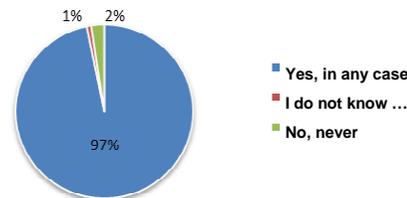


Fig. 7. Answers to the question: Would you be willing to donate again?

## Conclusions

- 1 Living renal donation is safe and overall acceptable concerning physical and psycho-social outcome.
- 2 There is a challenge of a small donor cohort (about 10% of all living donors) with physical or mental discomforts after kidney donation.
- 3 Further evaluation of this patient cohort with the aim to identify patients on risk prior to donation and improvement in psychosocial support prior and after donation is necessary.