OLDER ADULTS: THE RACE OF TWO RISKS - TRANSPLANTATION VERSUS TIME IN THE "WAITING LIST". HOW CAN A COMPROMISE BE FOUND?

Authors: *Zulkarnaev A., Vatazin A.*

Hospital: Moscow Regional Research and Clinical Institute, Russian Federation. Surgical department of transplantation and dialysis

INTRODUCTION

Older adults comprise over 20-25% of all the patients with CKD5. Treatment of these is a difficult and challenging job. There are many ways of improving survivorship of patients undergoing haemodialysis or peritoneal dialysis, however these have limitations. Kidney transplantation (Tx) is an effective way of improving survival. At the same time the increase in survival in recipients of kidney transplants (when compared to patients on the waiting list) is less profound amongst elderly patients, in comparison with the whole patient population. Older adults present as quite a heterogenous population and require a specific approach to risk stratification to allow for the choice of the optimal modality of kidney replacement therapy (dialysis or transplantation).

OBJECTIVES:

To assess the impact of comorbidity on mortality in renal transplant recipients and patients in "waiting list".

METHODS

We have analysed the results of treatment of 316 patients with CKD5 over the age of 65 years, 144 of them received a cadaveric first kidney transplant, while the others did not: they remained on the waiting list (WL), died or dropped out (censored). We evaluated the effect of risk factors on the survival rate of patients in the waiting list and of recipients of a kidney transplant.

RESULTS

Whilst amongst the recipients the annual mortality was relatively stable, that in the WL group increased significantly by the second year – fig.1.

Remaining on the WL for over 5 years increased the relative risk of death before transplantation (Tx) by 3.1 times (fig. 2) and reduces the predicted 5-year survival rate (fig. 3).

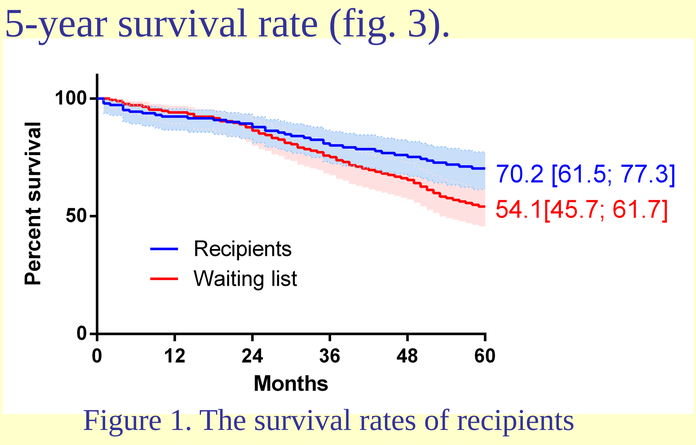

Figure 1. The survival rates of recipients and patients in "waiting list".
Gehan-Breslow-Wilcoxon test P value = 0,0314
Log-rank (Mantel-Cox) test P value = 0,0093

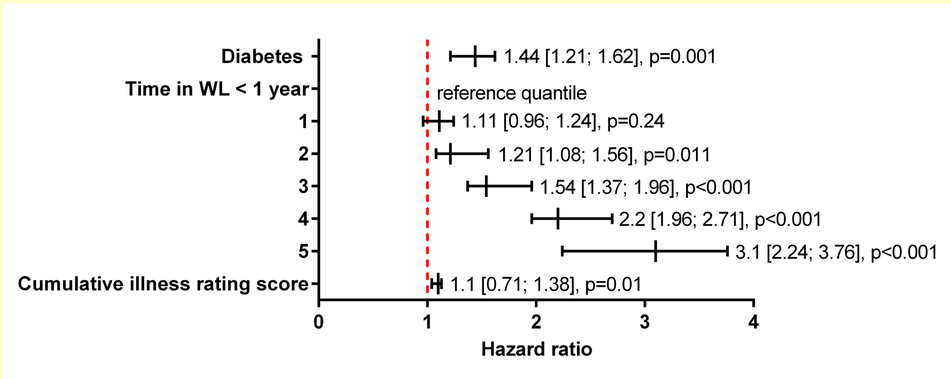

Figure 2. Risks factor for all cause death in patients in WL (Cox proportional hazards multivariate analysis). Adjusted for gender, age, cumulative illness rating score, hemoglobin, albumin.

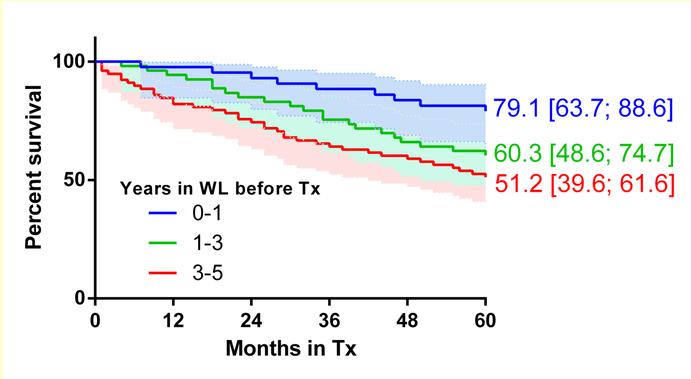

Figure 3. The survival rates of recipients stratified by waiting time in WL.
Gehan-Breslow-Wilcoxon test P value = 0,0021
Log-rank (Mantel-Cox) test P value = 0,0084

The main reason of death in the WL group was cardiovascular disease, in the recipients – infections (fig.4) . The main reason for deterioration post transplantation and of an increased mortality in the WL group – the rapidly worsening profile of comorbidities (fig.5). If the cumulative illness rating scale (CIRS) is more than 24 and the severity index is more than 1.85-2.18, coversion of risk (mortality incidence rate) occurs: the risk of death after transplantation is a little higher than that for patients remaining on the WL – fig.6.

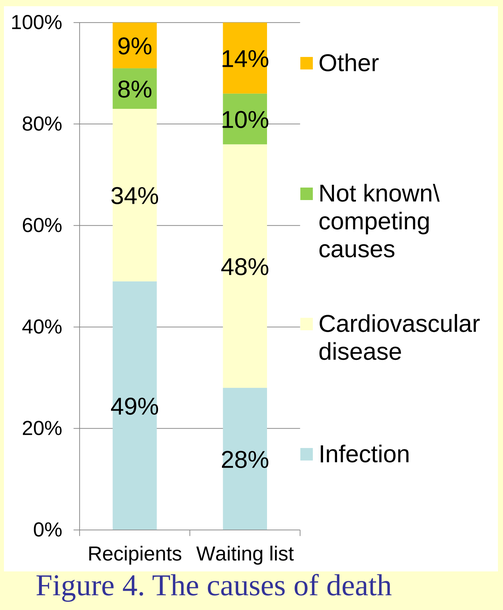

Figure 4. The causes of death

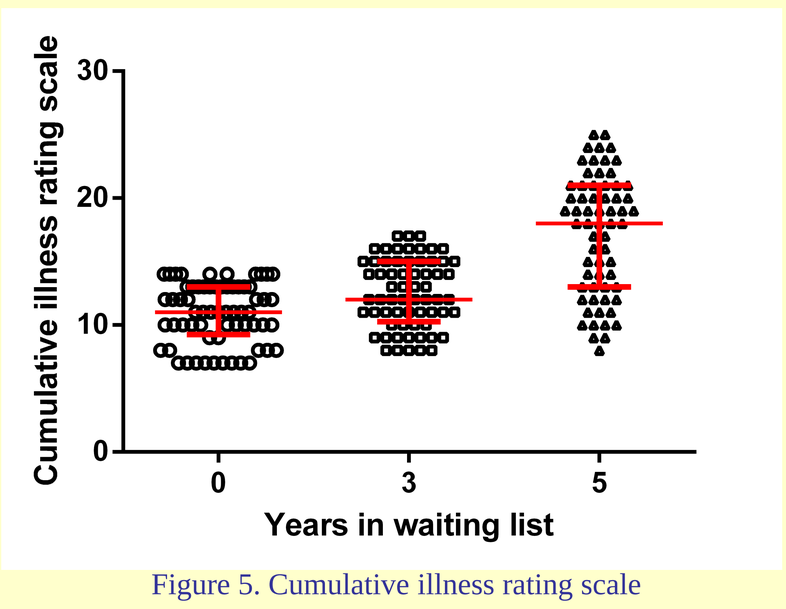

Figure 5. Cumulative illness rating scale

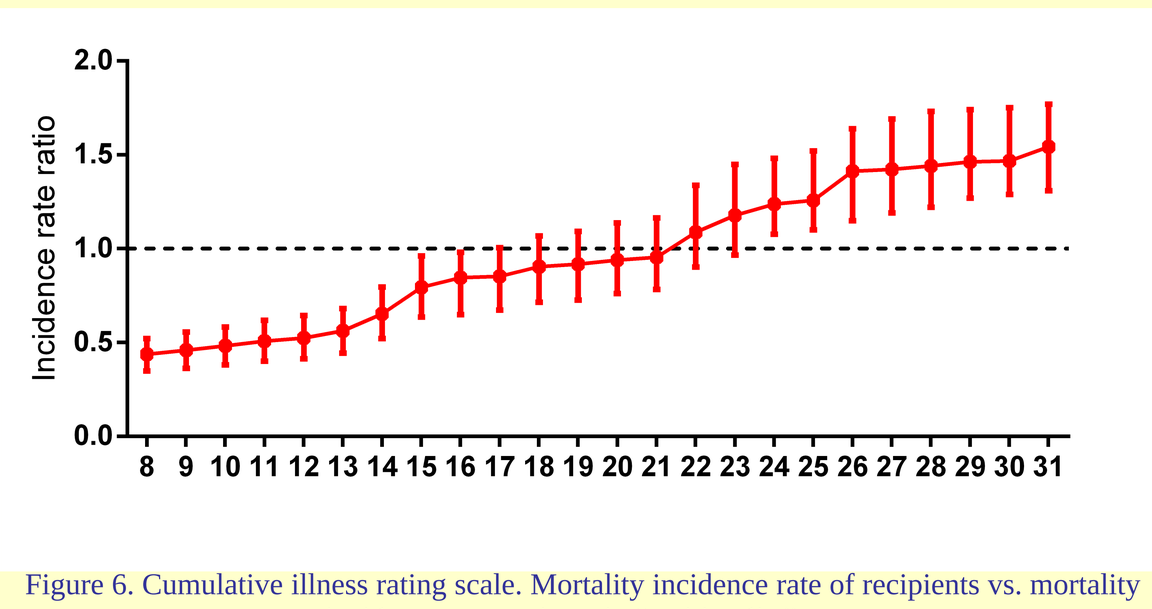

Figure 6. Cumulative illness rating scale. Mortality incidence rate of recipients vs. mortality incidence rate patients in "waiting list".

Amongst our recipients there were patients with 2-4 HLA-disparities (amongst these 34% HLA-DR compatible, 49% - with one HLA-DR mismatch and only 17% HLA-DR incompatible). When comparing results of transplantations with 2,3 and 4 HLA-mismatches, there was no difference in five-year survival rates neither in the patients(p=0.39), nor in the transplantates (p=0.11). This is an important aspect, as reducing the emphasis on HLA-compatibility may decrease the time on the waiting list (WL) and allow for earlier transplantation. At the same time, additional trials are needed to evaluate the effectiveness of the model which takes into consideration only HLA-DR compatibilities for elderly patients.

In the case of PRA over 20% there was a statistically significant difference in the survival rate of transplantates p=0.01 (compared to PRA<20%), but not in the survival rate of patients, (p=0.091). When PRA>80%, the five-year survival rate was less than in patients with PRA<80% (p=0.004), and less than in in patients on WL (p=0.031).

CONCLUSIONS

Therefore, the main strategy for these patients should be aimed at treating the chronic diseases in order to improve the profile of comorbidities. In this case, transplantation may somewhat worsen the results of treatment. Possibly, when decisions about transplantation are made, preference should be given to a patient in a better overall state of health.

Our study shows that when considering the question of transplantation in elderly patients on the WL, it is necessary to stratify per risk. First, the co-morbidities profile and PRA must be screened, and after that HLA-compatibility as an additional factor. Remaining on the WL for over five years significantly reduces the predicted survival rate post transplantation.

54 ERA
735--SP
Renal transplantation - Epidemiology & outcome I
Aleksei Zulkarnaev
DOI: 10.3252/pso.eu.54ERA.2017
ePosters supported by F. Hoffmann- La Roche Ltd.
PosterSessionOnline.com