
FRAILTY IN POTENTIAL KIDNEY TRANSPLANT RECIPIENTS

Anna Bach, Maria Vera, Yolanda Castillo, Dolores Redondo,
María Jose Pérez, Anna Faura, Ernestina Junyent

Servei de Nefrologia, Hospital del Mar, Barcelona

-
1. Introduction
 2. Objective
 3. Patients and Methods
 4. Results
 5. Conclusions
 6. Future ideas

INTRODUCTION

- The aging of global population still increasing.
- Prevalence of chronic kidney disease is rising.
- Prevalence in Spain 1211.5 pmp, 23% (65-75), 20% > 75. 4300 people in a waiting list for KT
- Patients who require renal replacement treatment are older.
- Patient on the KT waiting list has changed, becoming older and with more comorbidities, increasing the probabilities of complications after transplantation.
- Transplantation is better than remaining in the waiting list KT in long term, even risks in a early postransplant period.

INTRODUCTION

- With these changes, the identification of those patients with more risk of complications is essential to improve outcomes.
- Frailty scales are extended in geriatric services, with a good correlation with surgical complications, readmissions and mortality risk.
- **Frailty is defined as a biological syndrome with decreased reserve and resistance to stressors, resulting from cumulative declines across multiple physiological systems, and causing vulnerability to adverse outcomes like readmissions, falls or even mortality.**
- Frailty scale defined by **Fried** evaluated 5 items: Shrinking, Exhaustion, Slowness, Weakness and Low physical activities.

OBJECTIVE

Our principal aim was to characterize the profile of the patient on the waiting list for KT in our hospital and identify the frail patients and their characteristics.

PATIENTS AND METHODS

- Observational and prospective study, June 2016 to June 2017.
- Inclusion: All patients on the KT waiting list in our hospital that were evaluated for the referent nurse before surgery, available to fill the questionnaires by themselves.
- We included **177** patients, a total of 55 patients were identified with some grade of frailty (41 mild frail and 14 completely frail).
- The variables were collected at the moment of the first visit with the referent nurse. Firstly they held an interview, secondly did the physical test and finally they completed the questionnaires in a separate room in privacy.

PATIENTS AND METHODS

List of variables:

- Demographics, language knowledge, education, economic situation, family support.
- Renal data: etiology, type of RRT, date RRT starting, date of inclusion on waiting list.
- Medical history
- Anthropometric data
- Laboratory
- Frailty score
- Barthel index, Lawton&Brody test, SNAQ, Morinsky-Green, Yesavage test and social exclusion risk test.

RESULTS

- 177 patients were evaluated, 59.9% male (106)
- Mean age 62.1 years
- BMI of 27.9 kg/m²
- 34% (61) has type II diabetes mellitus
- Mean dialysis vintage 30 months
- Mean time on the waiting list 16.6 months
- Frailty:
 - 7.9% (14) completely frail
 - 23.1% (41) mild frail
 - 68.9% (122) non frail

RESULTS

Differences between frail and non frail patients:

Total (n=177)	Frail patients (n=55)	Nonfrail patients (n=122)	P
Sex woman (n. %)	31 (56.4)	40 (32.8)	<0.01
Age (mean±SD)	64,2±10,2	61,2 ±10,4	0.08
BMI (mean±SD)	29,3±5,8	27,3±5,6	0.03
Diagnosis of DM II (n. %)	24 (43.6)	37 (30.3)	0.08
Patients in HD (n. %)	42 (77.8)	77 (63.6)	0.13
RRT time [median (RIQ)]	28[14,2-42]	23[13,2-34,2]	0,02
WL time [median (RIQ)]	15[6-24]	14,5[5-23,7]	0.91

RESULTS

Differences between frail and non frail patients:

Total (n=177)	Frail patients (n=55)	Nonfrail patients (n=122)	P
Barthel index = 90-61 p (n.%)	7 (13.7)	3 (2.5)	<0.01
L&B test = 4 or less (n. %)	10 (19.6)	7 (5.8)	<0.01
SNAQ < 14 (n. %)	15 (28.1)	27 (22.7)	0.42
Yesavage test positive (n. %)	30 (66.7)	61 (55.5)	0.20
Poor family support (n. %)	12 (32.4)	10 (12.5)	<0.01

CONCLUSIONS

- Around 30% of patient in our waiting list for KT present some grade of frailty.
- The profile of the frail patient in our KT waiting list is a woman, in her sixties, with overweight, diabetes, more than 2 years on dialysis, poor family support and moderate grade of dependence for daily living activities.
- The rate of risk of depression was similar and very high in both groups, without a relevant relationship with frailty.
- Frailty in patients waiting for a kidney is very prevalent in our experience, and the referent nurse has a great potential role in minimizing its consequences and future morbidity and mortality.

FUTURE IDEAS

Once the Initial goal of the project, identify the frail patients, is done, we will continue this project:

- We are planning to consider those variables into in the KT work-up evaluation and not only the usual criteria (age, adherence to treatment, past medical history, etc...) to include a patient on the KT waiting list.
- We will follow the project aiming to answer two questions:
 - What is the evolution of these patients after transplant?
 - Would the evaluation of the KT candidates by different health professionals improve the inclusion and outcomes of these patients? Has the responsible nurse a relevant role?

THANK YOU!

