

# Stem cell and renal transplantation in patients with plasma cell dyscrasias and end-stage renal disease

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## Introduction

- Plasma cell dyscrasias (PCD) are one of the etiologies of end-stage renal disease (ESRD).
- Traditionally, renal transplantation (RT) has been avoided in these patients due to the poor patient survival, the risk of recurrence after RT and the high incidence of life-threatening infective complications.
- However, the good results of stem cell transplantation (SCT) combined with the new drug therapies in PCD patients with ESRD have encouraged their inclusion as KT candidates.

## Aims

- To describe the results of our experience of combined therapy with SCT and RT in patients with PCD and ESRD.

## Methods

- We performed a retrospective study that included all patients with PCD who had received both SCT and RT in our center.
- We reviewed renal, haematological, rate of infection evolution and recipient survival after 3 years of follow-up.

## Results

TABLE 1. Demographic and clinical features of our cohort

Mean age Years (range)	55 (49-57)
Males n (%)	4 (67%)
ESRD etiology	2 myeloma cast nephropathy (33%) 2 light-chain deposition disease (33%) 1 primary amiloidosis (16.7%) 1 FSGS (16.7%)
Type of PCD	5 multiple myeloma (83%) 1 primary amiloydosis
Timing of SCT	4 previous to RT (67%) 2 after RT (33%)
Induction therapy in RT	4 basiliximab 1 timoglobuline

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## Results

TABLE 2. Results during and at the end of follow-up.

Median follow-up (mo)	36
Median serum creatinine (mg/dl) after 1 year	1.6 [1.1-1.9]
Median serum creatinina (mg/dl) after 3 years	1.3 [1.1-1.9]
Acute rejection rate	1 case (16.7%) 10 months past RT
Overall renal graft survival (%)	83%
Recurrence of PCD after KT (%)	50%
Severe infection rate (no)	3 patients who developed 5 infection cases who required in- patient management 2 invasive aspergillosis 2 viral infections 1 urinary infection.

## Conclusions

- Sequential SCT and RT could be a suitable option for patients with PCD and ESRD.
- Both patient and renal graft survival are conditioned to the relapse of hematological disease and infective complications.
- The high incidence of fungal infection will require special prophylaxis measure.
- These results highlight the importance of declaring more number of patients in this situation and with longer follow-up to elucidate the best management of PCD with ESRD.

