

MGUS IN RENAL TRANSPLANT: STILL A MATTER OF CONCERN?

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OBJECTIVES

Monoclonal gammopathy of undetermined significance (MGUS) is defined as the presence of a serum monoclonal protein in a small but abnormal concentration. The incidence of MGUS in the population over 50 yr of age is > 3% and slowly increases with age. At the moment the incidence of MGUS in patients (pts) undergoing evaluation for kidney transplantation (KT) have not been described but as the number of transplant candidates > 50 yr is increasing this condition had become an important aspect of the pre-transplant evaluation. Despite of the frequency of this condition there is a paucity of information on the long-term outcomes of MGUS pts who received a solid organ transplant.

METHODS

This is a retrospective study. We evaluated all kidney transplanted pts between November 1998 – February 2012. We included all patients found to have MGUS at the moment of transplant or after-transplant. The follow up was stopped at august 31, 2012. An hematological evaluation was performed in all pts with a monoclonal gammopathy to rule out myeloma and lymphoproliferative disease. Pts with MGUS who received a KT were compared with pts with pts on dialysis with MGUS.

RESULTS

From November 1998 to February 2012, a total of 851 adults underwent KT. 1) 16 pts were found to have a MGUS before transplant. Median follow-up was 7.8 years (range 2.2 - 18.95), median follow up pre-transplant 3.7 years (range 0.19 – 10.2) (Fig. 1). Median age at the MGUS-diagnosis was 61.3 years (range 42-78). The distribution of MGUS chain isotypes was as follows: IgG (12/16), IgM 2/16, IgA (2/16). Bone marrow biopsy and aspirate were performed in 13/16 pts (81.2%). During a median post-transplant follow-up of 4.1 yrs, 1 pt developed a myeloma. 2) 16 pts with MGUS who received transplant were compared to pts with MGUS on dialysis at the time of the study. During a median follow up of 3.18 years. No one developed a myeloma. 3) 26 pts developed a MGUS after kidney transplant, median follow up was 4.29 years (Fig. 2). Median age at the diagnosis was 52.7 years. The distribution of MGUS chain isotypes was as follow: IgG 21/26 pts (77.8%), IgA 4/26 (14.8%), IgM 1/26 (3.7%). Bone marrow biopsy and aspirate were performed in 15/26 pts. During a follow up of 4.84 years 1 pt developed a myeloma.

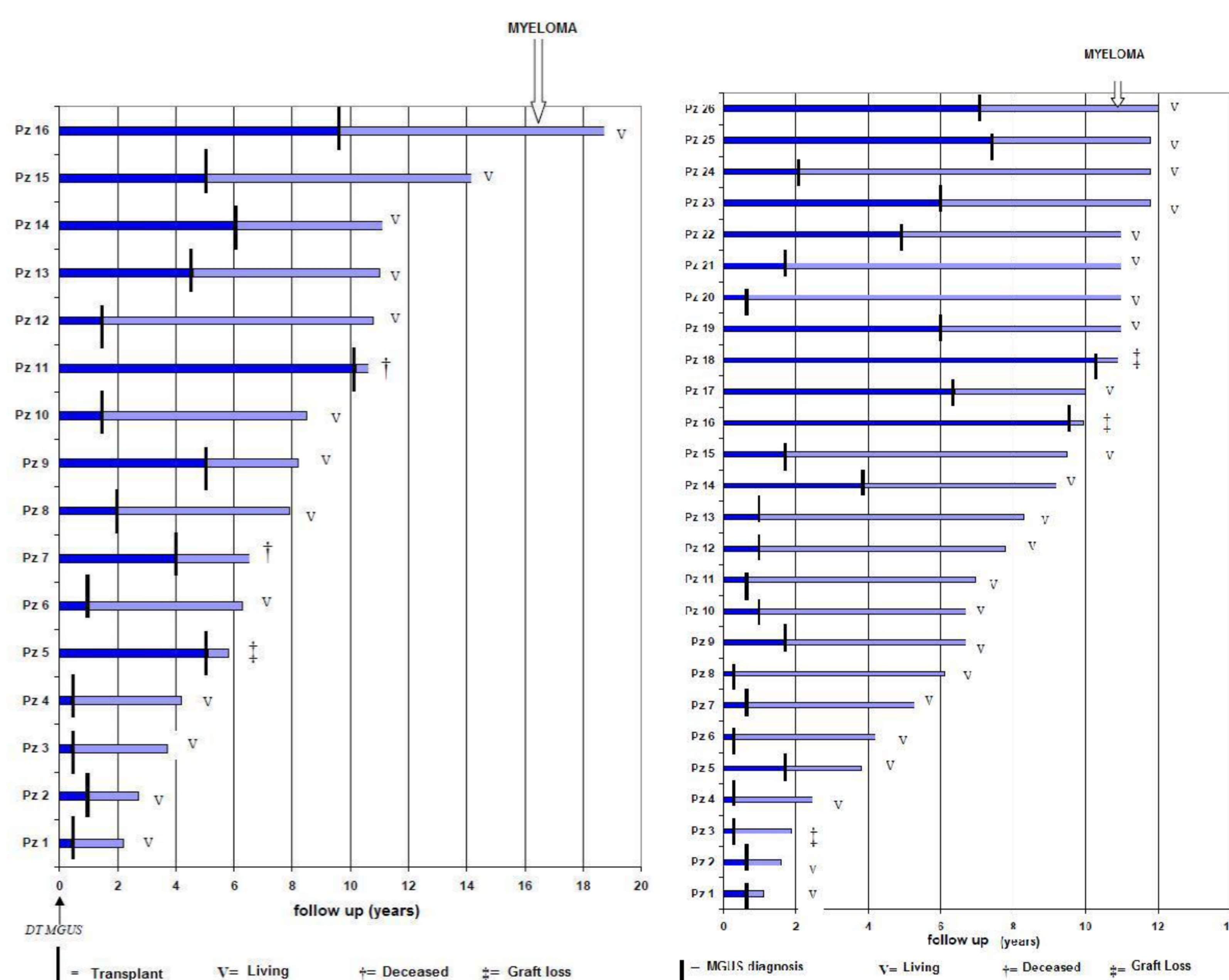


Fig.1: Follow-up of patients with MGUS pre-transplant

Fig.2: Follow-up of patients with MGUS post-transplant

CONCLUSIONS

Our study represents one of the largest series of pts with MGUS pre or post-KT to date. The finding that only 2 out of 42 MGUS patients progressed to myeloma on a long term follow-up suggests that renal transplant milieu does not entail an increased risk for this evolution. The organ and pts survival can be overlapped to the overall population. From this study results the presence of MGUS is not a contraindication to KT.

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