



## Outcomes of living kidney donors with monoclonal gammopathy of undetermined significance

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## LETTER TO THE EDITOR

**Outcomes of living kidney donors with monoclonal gammopathy of undetermined significance**

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Here, we report outcomes of four cases of living kidney donors with history of monoclonal gammopathy of undetermined significance (MGUS) at Mayo Clinic, Rochester, Rochester, MN between January 2000 and September 2014.

The number of patients with end-stage kidney disease (ESRD) awaiting transplantation in the United States (U.S.) has increased over time, by 3000 to 4000 patients each year.<sup>1</sup> Data on safety outcomes of living kidney donors are required to increase public confidence in the transplantation system. MGUS is a common asymptomatic premalignant clonal plasma cell or lymphoplasmacytic proliferative disorder, occurring in more than 3% of the general population over the age of 50.<sup>2</sup> Since patients with MGUS can progress to more advanced diseases (multiple myeloma, immunoglobulin light chain (AL) amyloidosis, light chain deposition disease in non-IgM MGUS and Waldenström macroglobulinemia in IgM MGUS) approximately at rate of 1% per year,<sup>2,3</sup> the outcome data on of living kidney donors with MGUS are needed. Thus, we report outcomes of living kidney donors with history of MGUS prior to donation.

A total of 1776 kidney donors were screened. Four living kidney donors with MGUS were identified using ICD-9 code of 273.1. Donors' mean age was  $57 \pm 11$  years. Three of the four donors were females. Mean baseline serum creatinine was  $1.0 \pm 0.1$  mg/dL with a mean eGFR of  $66 \pm 7$  mL/min/1.73 m<sup>2</sup> using the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI).<sup>4</sup> Two donors had monoclonal IgG kappa, one donor had IgM kappa and another donor's monoclonal protein was detected, but not classified (Table 1). At median follow-up time of 5 years (IQR 0.7–9 years), none of the donors were diagnosed with multiple myeloma or other lymphoplasmacytic proliferative disorders. There were no evidences of anemia, hypercalcemia or detected bone lytic lesions. Mean serum creatinine was  $1.2 \pm 0.2$  mg/dL with a mean eGFR of  $57 \pm 13$  mL/min/1.73 m<sup>2</sup>. None of the donors with MGUS developed end stage renal disease or died.

In summary, these findings are reassuring for the safety of healthy living kidney donors with MGUS.

Table 1. Baseline characteristics of donors with MGUS.

	Case 1	Case 2	Case 3	Case 4
Age	46	71	57	42
Sex	Female	Male	Female	Female
Baseline Cr (mg/dL)	0.9	1.2	1.0	1.0
Baseline GFR (mL/min/1.73 m <sup>2</sup> )	76.6	60.2	62.4	64.9
Immunofixation	Monoclonal IgG kappa	Monoclonal IgM kappa	Monoclonal IgG kappa	Monoclonal protein (not classified)
M Spike prior to donation (g/dL)	0.7	0.6	Not reported	Not reported

## Declaration of interest

The authors declare no conflicts of interest. No financial support has been received for this work.

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