Early post-transplant serum IgA level is associated with IgA nephropathy recurrence after kidney transplantation.

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Résumé en anglais	IgA nephropathy (IgAN), the most frequent primary glomerulonephritis, affects young patients and is associated with a high risk of progression to end-stage renal disease. Consequently, patients with IgAN constitute an important proportion of candidates for kidney transplantation. Several studies showed a significant risk of IgAN recurrence on kidney graft, but the risks factors for recurrence remain to be accurately evaluated. Indeed, early identification of at risk patients may allow the optimization of treatment and the reduction of recurrence rate on the graft. In the present work, we studied the relationship between post-transplant serum IgA (sIgA) levels and the risk of IgAN recurrence after kidney transplantation. Recipients with IgAN had higher levels of sIgA as compared to patients with other nephropathies ($p<0.05$). The prevalence of IgAN recurrence was 20.8% during the period of analysis (mean follow-up of 6 ± 3.2 years). Serum IgA levels at M6, M12 and M24 post-transplant were significantly higher in patients with IgAN recurrence as compared to those without ($p = 0.009$, $p = 0.035$ and $p = 0.029$, respectively). Using receiver operating curve (ROC), sIgA at M6 and M12 post-transplant were significantly associated with IgAN recurrence (AUC = 0.771, $p = 0.004$ and AUC = 0.767, $p = 0.016$, respectively), while serum creatinine and proteinuria were not. Serum IgA level at month 6 was significantly associated with the occurrence of post-transplant IgA recurrence, whether it was analyzed as a continuous or a categorical variable. After successive adjustment on age, gender and proteinuria, sIgA remained a significant risk factor of post-transplant IgAN recurrence. Finally, survival free of IgAN recurrence was significantly better in patients with sIgA<222 mg/dL at month 6 as compare to IgAN patients with sIgA≥222 mg/dL ($p = 0.03$). Thus, the present work supports a link between post-transplant sIgA levels and IgAN recurrence and suggests that sIgA may be a valuable predictive biomarker of IgAN recurrence in kidney transplant recipients.
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