

baseline; thus, the diagnosis of preeclampsia was also retrospectively made without kidney allograft biopsy.

Because preeclampsia in KTRs can be a risk factor for subsequent transplant kidney dysfunction, following the study by Kattah *et al.*,<sup>1</sup> we may proactively consider measuring the sFlt-1/PlGF ratio for early diagnosis if preeclampsia is suspected.

## CONSENT

We obtained informed consent from this patient and she accepted the presentation of their clinical course. The consent details are stated in the electron medical record at St. Mariann University Hospital.

## AUTHOR CONTRIBUTIONS

RN and MY participated in the writing of the paper and in the approval of final manuscript.

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# Response to “New Biomarker of Preeclampsia in Kidney Transplant Recipients”



**The Author Replies:** Drs. Noda and Yazawa’s interest and response to our article is much appreciated.<sup>1</sup> They present a case that highlights one of the most difficult clinical scenarios in obstetric nephrology—differentiating preeclampsia from other intrinsic kidney disease processes. In the kidney transplant population, the differential is even broader, with rejection, infection, and recurrent disease, all potentially causing dysfunction in the allograft.

The use of sFlt-1/PlGF ratio shows great promise in ruling out preeclampsia in many clinical scenarios, especially preterm preeclampsia.<sup>2</sup> Angiogenic markers remain for investigational use only in the United States.<sup>3</sup> Bramham *et al.*<sup>4</sup> have performed longitudinal assessments of angiogenic markers in women with established hypertension and chronic kidney disease, including women with kidney transplants. They found that whereas sFlt-1 and PlGF levels, and the sFlt-1/PlGF ratio, were significantly different between women with superimposed preeclampsia and women without pre-existing disease, PlGF ratio at less than fifth percentile had the highest predictive value, and sFlt-1 did not improve on diagnostic accuracy.<sup>4</sup> Larger studies in kidney transplant patients with longitudinal measures will be helpful in validating these findings.

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