Induction Therapy, HLA Mismatching, and Standard-Risk Kidney Transplantation

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Dear Editor,

We have read with great interest the research work titled “Outcomes of Interleukin-2 Receptor Antagonist Induction Therapy in Standard-Risk Renal Transplant Recipients Maintained on Tacrolimus: A Systematic Review and Meta-Analysis” conducted by Hatem Ali et al. [1].

The authors found no additive benefit for interleukin-2 induction therapy in the standard risk population. Similar results were shown in the previous registry and in retrospective studies [2, 3]. The authors used a broad definition for standard-risk renal transplant which included HLA mismatches of <5.

Most of the studies included in the meta-analysis used a low-resolution 6-digit HLA mismatching technique. The current technology for HLA mismatching uses me-

dium and high-resolution HLA mismatching to detect mismatching at the epitope and eplet levels. There is growing evidence that mismatching at the epitope and eplet levels might affect the outcomes [4]. This should be taken into consideration while assessing the immunological risk and decision about induction therapy.

Furthermore, there is emerging evidence that HLA-DQ mismatch has a pivotal role in kidney transplantation outcomes, and it should also be considered for assessment of the transplant immunological risk [5].

I agree with the authors that interleukin-2 induction therapy might not be needed in low-risk renal transplant patients. However, this decision should be taken after considering HLA-DQ mismatching and epitope and eplet levels via HLA mismatching.

References

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- 3 Ali H, Mohiuddin A, Sharma A, Shaheen I, Kim JJ, El Kosi M, et al. Implication of interleukin-2 receptor antibody induction therapy in standard risk renal transplant in the tacrolimus era: a meta-analysis. *Clin Kidney J*. 2019;12(4):592–9.
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