

Transplantation

LETTERS TO EDITOR

THE INFLUENCE OF MATCHING IN LIVING-RELATED TRANSPLANTS

In the report by Sanfilippo, Thacker, and Vaughn (1) of the living-donor experience in SEOPF, the impression is given that matching accounted for the 9% overall difference at 3 years in graft survival with a 2-haplotype match (85%) versus a 0-haplotype match (74%). When cyclosporine and donor-specific transfusion were used in a subgroup of the total experience, the figures were reversed (78% survival with good match versus 86% with poor match). Donor relationship was mentioned in the *Materials and Methods* section suggesting that because family genotyping was performed these were all living-related donor transplantations. Certainly, the 2-haplotype matches must have been mostly with siblings. In the *Discussion* section, the clarification is made for the first time "... that recipients of HLA-identical (2 HM) L-D transplants have a significantly reduced risk of graft failure compared with unrelated (0-HM) L-D transplants ...".

If the latter condition existed, we wonder if the sea of detail and statistical jargon used in this report has obscured the fact that related donors have a biologic advantage over nonrelated donors beyond what can be measured with HLA typing (2). If this were acknowledged, the message would not be that "match-

ing counts." Instead, the second message contained in their references 2-4 would be strengthened—namely, that poor matching can be overcome regularly even with nonrelated transplantation by appropriate techniques of immune modulation. The transplantation literature is replete with controversy about the equity (or inequity) of tissue matching as an instrument of cadaver (unrelated) kidney distribution. Since the articles, pro and con, tend to be counted rather than read, this one is apt to appear inappropriately in the pro-typing column.

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2. Cicciarelli J. Living donor kidney transplants. In: Terasaki PI, ed. *Los Angeles: UCLA Tissue Typing Laboratory, 1988: 293.*

REPLY TO STARZL AND IWAKI

The letter by Drs. Starzl and Iwaki raise several issues in regard to our recent publication on living-donor renal transplants (1). Indeed, the biologic relationship of donors and recipients in the 0-haplotype-matched (0-HM) group was not defined in this article. Biologic relatives accounted for 71 of the 115 0-HM recipients (62%), whereas the remainder (38%) were unrelated living donors.

The question of whether related donors have a biologic advantage over unrelated donors independent of HLA compatibility cannot be accurately ascertained from the limited data available in this study. A simplistic comparison of actuarial graft survival between the related versus unrelated 0-HM patients shows no suggested differences at 6 months ($85.5 \pm 4.3\%$ vs. $84.9 \pm 5.7\%$), 1 year ($80.6 \pm 4.9\%$ vs. $78.9 \pm 6.7\%$), or 2 years ($72.3 \pm 5.9\%$ vs. $75.2 \pm 7.3\%$). However, this apparent lack of difference must be qualified by several demographic differences between these two groups. For example, compared with unrelated 0-HM recipients, the related 0-HM group includes a lower percentage of patients more than 45 years old and a threefold higher percentage of black patients. In addition, a majority of the related 0-HM patients were transplanted at centers that did not do unrelated 0-HM transplants. Since, age, race, and center effects may each independently impact on graft survival, these demographic differences must at least be considered before drawing any conclusions from unstratified univariate comparisons. Unfortunately, the relatively small number of patients in these groups precludes meaningful stratification or multivariate analysis to resolve this question.

The reference cited (2) to suggest that graft survival between 0-haplotype siblings is better than that of living-nonrelated

patients also presents a simple univariate comparison of graft survival that shows that the suggested difference is not statistically significant. Moreover, the difference observed might be explained by demographic differences between these groups for race, donor age, or immunosuppressive therapy. A critical examination of this question using an appropriate patient study population remains to be done, and would provide an answer to the very important question raised.

Finally, we share the hope that this article will be read rather than counted, so that our detailed analysis can be critically evaluated and understood. We think our findings clearly support the conclusions that are summarized in the last paragraph of the *Discussion* section and the last sentence of the *Abstract*—i.e., "that the use of pretransplant transfusions and CsA therapy may have differential benefits depending upon HM [haplotype matching] in living-donor renal transplantation."

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