Letter to the Editor

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Response

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Dear Sir,

We have read Dr. Nehlsen-Cantarella’s comment on our article ‘Validity of Flow Cytometry for Cross-Match Evaluation in Clinical Renal Transplantation’.

Dr. Nehlsen-Cantarella, whom we would like to thank for the interest she has shown in our research, makes several points on our study. In the light of what she says, we feel it may be useful to stress that our main aims in the paper were to describe a technique to enhance cross-match reading sensitivity and to present the results of the large-scale clinical application of it. This is, we think, clear from the text, as Dr. Nehlsen-Cantarella herself notes.

On the question of the need to develop new techniques to improve donor-recipient compatibility in renal transplantation so as to enhance the clinical results, during the last 20 years many modifications have been proposed to improve the basic ‘donor-recipient NIH standard cross-match test’ [1]. Among these variables, the long-term incubation [2] and the antiglobulin techniques [3], mentioned by Dr. Nehlsen-Cantarella, are both aimed at detecting a wider range of antibodies than the pure NIH-standard technique. They certainly represent a significant step forward, are undeniably more sensitive, but are probably less specific.

As far as other indirect immunofluorescence flow cytometry techniques are concerned [4], the antibodies detected by such techniques do not necessarily have the same biological activity as those revealed by the cytotoxicity method. They thus represent a different approach to the problem, being able to identify populations of transplant recipients with a high risk of graft loss due to immunological events. In some patients, however, the antibodies detected have proved to be irrelevant to the transplantation outcome [5].

The methodology we have developed exploits the same biological reaction (i.e., complement-dependent cytotoxicity) as is used in standard light microscopy assays. The advantage of our method over this still accepted technique for donor-recipient cross-match test in clinical transplantation is that it increases the sensitivity of the reading, thus reducing the possibility of error.

We thank Dr. Nehlsen-Cantarella for her observations and the Editor for giving us a chance to comment on the letter.

References
