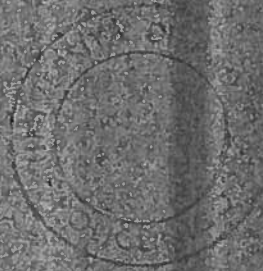


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Transplantation

LETTERS TO EDITOR

THE SAFETY OF AUTOMATED "BIOPTY" RENAL TRANSPLANT BIOPSIES

We read with interest the brief communication detailing the method for renal allograft biopsy employed at the University of Rochester. This involved the use of an 18-gauge needle in conjunction with the automated BioptyQ prostate needle system and ultrasound guidance (1). The results of 52 biopsies were documented.

In the past year we have attempted 181 renal transplant biopsies on 118 patients using a similar method. Our practice is to make two passes into the kidney as this increases the volume of material available for histological review. The results were diagnostic in 169 (93%) of the cases, medulla only in 6 (3%), and no renal tissue in 6 (3%).

On one occasion when no renal tissue was obtained a fragment of colonic mucosa was present in the sample but the patient experienced no untoward clinical event. Three patients (3.3%) had macroscopic hematuria that persisted for more than 6 hr. One of these patients was catheterized for two days and another for three days. All the episodes of hematuria were obvious within the first few hours after the biopsy.

There have been no other complications—and, in particular, no patient required blood transfusion or developed graft dysfunction that could be attributed to the biopsy. The low complication rate and early diagnosis of adverse events have allowed the procedure to be performed on an outpatient basis with the potential for significant savings in hospitalization costs.

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THE USE OF SOLUBLE INTERLEUKIN-2 RECEPTOR LEVELS IN CARDIAC TRANSPLANT RECIPIENTS

We would like to add our comments to those of Jutte et al. (1) and Ippoliti et al. (2) regarding the interpretation of soluble interleukin-2 receptor levels in heart transplant recipients, both of whom conclude that sIL-2R is not a useful marker of rejection after heart transplantation. In their article "Sequential measurements of soluble interleukin-2 receptor levels in plasma of heart transplant recipients," Jutte et al. have grouped measurements from 15 heart transplant recipients undergoing a broad spectrum of immune activation following orthotopic heart transplantation, comprising acute tissue injury due to surgery, implantation of a foreign organ, and bacterial and viral infection. They have then asked if monitoring of a single cytokine will pick out patients who are rejecting (?), despite other immunological events that are ongoing. While having our own reservations about the specificity of sIL-2R as an agent for monitoring rejection, we are unhappy to accept this observation, as the sIL-2R levels were analyzed too infrequently, and only at the time of biopsy, an investigation usually performed as a routine surveillance procedure—not in the light of evidence of immune activation—that may predate eventual graft infiltration. Ippoliti et al., while having removed clinically infected patients, have also failed to consider a possible temporal relationship between cytokine activation and subsequent rejection. We suggest that the peak levels of immune activators may predate the histological changes or relate to the early development of rejection, and could explain the poor relationship between simultaneous sIL-2R levels and allograft rejection. Moreover, the rejection process itself may have been

present for some time prior to biopsy, when cytokine activation may have been high, or it may be self-resolving at the time the biopsy was taken.

Rising sIL-2R levels are part of a nonspecific immune activation process (3-7), but in the setting of acute cardiac allograft rejection in an otherwise well transplant recipient more than one week after surgery, we have found sIL-2R levels rise a number of days before the demonstrable presence of a cellular infiltrate and myocytolysis on endomyocardial biopsy (Jennison SH, Caforio ALP, Fashola T, Gordon D, Holt DW, McKenna WJ, manuscript in preparation). We believe that histological changes in the myocardium, although specific, are a relatively late reflection of immunological activation and attack, and suggest further investigation into a potential role for sIL-2R as a predictor of clinically significant rejection. To justify their claim, Ippoliti et al. should perform biopsies at the time of peak sIL-2R levels or a few days thereafter and assess the histological response.

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