Mantle’s Transplant Raises Delicate Issues About Organ Allocation

This is the first of two articles examining the use of liver transplants in the treatment of liver cancer.

Does a “celebrity system” prevail in the field of organ transplantation? And is there really a role for transplants in cancer therapy when — in spite of a growing number of donors — the shortage of organs is more acute than ever because the number of people who are being considered for transplants is growing faster still?

These questions were front and center last year when the Southwest Organ Bank in Dallas found the late Mickey Mantle a replacement liver only 48 hours after physicians at the Baylor Institute of Transplantation Sciences — also in Dallas — had requested one on his behalf.

And that the baseball Hall of Famer then died of liver cancer in August — barely 2 months after his transplant — further fueled speculation that he had been accorded special treatment because of who he was. In hindsight, however, that is far from clear.

“People should understand that, as one of the nation’s 65 organ procurement organizations (OPOs), we go by the guidelines of our umbrella organization, the United Organ Sharing Network (UNOS),” said Alison Smith, R.N., who heads the Southwest Organ Bank. Based in Richmond, Va., UNOS is funded by the federal Health Resources and Services Administration, a sister agency of the National Institutes of Health.

Priority Area

“UNOS criteria say that the transplant center closest to us has the first call on our services,” said Smith. “So it was not because Mr. Mantle was a celebrity that he was first in line for a donor liver, but because he was a patient at the transplant center here in Dallas and was critically ill. Had there, in fact, been a patient in our service area whose need for that liver was even more urgent, he or she would have had priority.”

(For liver transplants, the ABO blood groups of recipient and donor must be compatible. Type O donors are suitable for all recipients. Recipients having AB blood can be given a donor liver of any ABO blood type.)

Still, the primary allegiance of OPOs to the transplant center or centers nearest them — a consequence of UNOS policy — disturbs Arthur Caplan, Ph.D., director of the Center for Bioethics at the University of Pennsylvania, Philadelphia.

That’s because the centers have first call on their local OPO’s resources, whether or not their patients are from the vicinity. “The result,” said Caplan, “is that people who are in the know and can afford it often arrange to be seen at several regional transplant centers. As each regional center is served by a different OPO with its own waiting list, the effect is to get them multiply listed and so improve their chances of finding a donor organ.”

Caplan continued, “The council on ethical and judicial affairs of the American Medical Association is opposed to multiple listings for the same reason I am: they unfairly penalize the poor and the medically naive. Mickey Mantle, to be sure, happened to live in Dallas. The point is that someone in his position could have well been at the head of the Baylor queue for a liver even if he had been living in Maine.”

Publicity Factor

Richard Kaplan, M.D., of the Division of Cancer Treatment, Diagnosis, and Centers at the National Cancer Institute has a different, though related, concern: the publicity factor.

“I am not saying that decisions about transplanting celebrities hinge on only their celebrity,” said Kaplan. “But if two candidates for a transplant are equally eligible and one of them happens to be famous, there is surely a temptation to tip the balance his way because the transplant community has learned that the media attention high-profile patients attract increases or—
gan donation. That likely will be the way of the transplant world for as long as donor organs are in short supply."

A somewhat different perspective on the issue was offered by Andrew Klein, M.D., of the Johns Hopkins University in Baltimore, Md., where he is associate professor of surgery and chief of the Division of Transplantation. Klein contrasted the allocation process for scarce organs, especially for livers, to triage: the practice of sorting battlefield casualties by the severity of their wounds and assigning them a treatment priority accordingly.

"The thing to notice," said Klein, "is that the highest battlefield priority goes to the casualties that need treatment to survive, rather than to those who will survive without it or for whom treatment can be expected to do little good.

With transplants, by contrast, it can be the patient with a poor prognosis who gets priority. Though peacetime medicine and wartime medicine differ, I am not sure that [this method of allocation] is right in the face of a scarcity of livers and other organs and increasing demands for cost effectiveness."

Waiting and Dying

Perhaps nowhere has the matter been given more thought than at the Baylor Institute of Transplantation Sciences where Mantle was treated. "It's hard to justify replacing the livers of patients with an uncertain future when other patients, with a good prognosis if transplanted, are waiting and dying for lack of a suitable liver," said Göran B. Klintmalm, M.D., Ph.D., who heads Baylor's liver transplant program. "On the other hand, ours is a complex field. We would be left with an increasingly obso-

Klintmalm and his colleagues, in fact, are so committed to that principle that it is their policy to transplant liver cancer patients only if they qualify for an investigational protocol.

For patients with a liver cancer like Mickey Mantle's, the Baylor protocol calls for several weeks of low-dose chemotherapy before transplantation to, as Klintmalm put it, "keep the tumor at bay by preventing its spread until such time as it is removed."

But, because Mantle's liver failure (due primarily to cirrhosis and a chronic viral hepatitis C infection) had taken a sudden turn for the worse, his need for a transplant was so urgent that part of the protocol was shelved, although the rest of it — chemotherapy during and after surgery — was observed.

Exceptions, Arguments

That explanation does not satisfy everyone. Nor does the case Klintmalm makes for pursuing the study of transplantation as liver cancer therapy. The University of Pennsylvania's Caplan, for example, questions whether an exception to full adherence to the protocol should have been made for Mantle. And the argument that the technology must continue to evolve for the sake of therapeutic progress doesn't impress him either.

"Once a technology has shown promise for some diagnoses, people always want to extend its reach to more," said Caplan. "However, you have to wonder if liver cancer should be added to the list of indications for transplant when there are already not enough donor livers to go around.

"Besides, even if there were enough [donors], transplants and the aftercare needed to support patients for the rest of their life will probably never be cheap. So you also have to wonder if efforts to improve [transplants] for liver cancer won't bump up against constraints on health care spending. Why strive to improve a technology and expand the indications for it when most of the people who could benefit from it likely won't be able to because of its high costs?"

Despite that gloomy prognosis, researchers are bent on pressing ahead. One reason is the obvious one that scientists are, by tradition, reluctant to turn their backs on a challenge. But another factor is that — while most patients who have cirrhosis don't develop liver cancer — it is a very rare liver cancer patient who doesn't have cirrhosis as well.

Put another way, for neither disorder is there an entirely satisfactory treatment. However, there is at least the possibility that transplantation, if perfected, could be curative for the patient who has both. That being the case, it should come as no surprise that it is precisely that goal that the Klintmalms of the world have in mind.

"Part two of this series will explore the current status of transplantation as investigational therapy for liver cancer."

— Judith Randal