



insidesurgery

TRANSPLANT OPTIONS FOR TYPE I DIABETES

Insulin dependent (type I) diabetes frequently leads to severe health complications in patients whose blood sugar levels cannot be adequately controlled. UCSF performs two procedures designed to provide selected patients with a healthy supply of insulin-producing beta cells: solid organ pancreas transplantation and pancreatic islet transplantation. With technological advances and better immunosuppressive regimens, the success of both procedures has greatly improved in the last five years, according to Peter Stock, MD, PhD, who with Andrew Posselt, MD, PhD, heads the UCSF Pancreas and Pancreatic Islet Transplant Program. Pancreas or islet transplants are typically performed in patients who have difficulty in controlling their blood sugar levels or who have developed other complications of the disease, such as kidney failure. In fact, the majority of patients who are candidates for pancreas transplantation have kidney failure from their diabetes and receive a kidney as well as a pancreas.

Pancreatic islet transplantation

Particular strides have been made in the last five years in improving outcomes for pancreatic islet transplantation. Islets, which contain the insulin-secreting beta cells, are retrieved through extensive processing of a cadaver donor pancreas and are then injected into the patient without the need for major surgery.

Islet transplantation was first performed in a diabetic patient in 1974, but over the next 25 years very few patients were able to achieve insulin independence with the procedure. In 2000 a group from the University of Alberta developed a strategy, the Edmonton protocol, that greatly improved the success of islet transplants. The protocol uses multiple

infusions of islets from different donors to achieve insulin independence, and eliminates steroids, known to be toxic to beta cells, from the immunosuppression regimen.

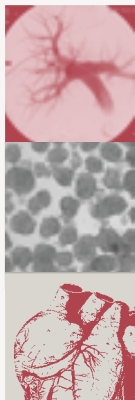
At UCSF the labor-intensive islet processing procedure is carried out at the Islet and Cellular Transplantation Facility. When the processing procedure is completed, the recipient is admitted to the hospital and the pancreatic islets are infused into the portal vein. The islets then migrate to the liver, where they begin producing insulin.

Because islet transplantation is minimally invasive, it can be offered to patients with severe cardiovascular disease who cannot

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LETTER FROM THE CHAIR

This issue of *Inside Surgery* brings you up to date on progress in solid organ and cellular transplantation. UCSF Medical Center has been at the forefront of clinical transplantation since it performed its first kidney transplant in 1964. Each of the transplantation services reflects a collaborative partnership of specialists in complementary disciplines. The “team” approach to patient selection and care optimizes the management of patients.

Our transplantation services also exemplify the translation of innovative techniques and novel treatment to patient care. This promotes the rapid application of the best therapy to patients.

Transplantation results must be assessed in the context of the recipient’s co-morbid conditions. We are proud of the fact that our transplantation services have superior outcomes that significantly exceed what would be expected, given the high-risk patients for whom we care.

We are pleased to update you on these vital programs.

Sincerely,

Nancy L. Ascher, MD, PhD
Professor and Chair, Department of Surgery



Tara Rojas



Ivan Barriga

PATIENT PROFILE

Tara Rojas

When patients talk to Tara Rojas, an administrator with the UCSF beta cell transplant program, they know they have found a sympathetic ear. A former diabetic who spent two years on dialysis, Rojas received a combined pancreas-kidney transplant in 2001. She has been an enthusiastic cheerleader for beta cell replacement ever since. "I never believed I'd have a life without diabetes," she said. Rojas, 42, said she felt "instantly better" after her transplant, and wanted to give back something to the world of diabetes. With extensive administrative experience in health care settings, she convinced UCSF to hire her to help set up its fledgling pancreatic islet transplant program. Even though she loves being part of the transplant team, Rojas reduced her work hours after the program was set up. With the birth of her first child, a daughter, 14 months ago, she needed the extra personal time. "Since my transplant, I've been able to do everything I dreamed of doing," said Rojas.

Ivan Barriga

"It's a different life without having to take insulin," said East Bay resident Ivan Barriga. The Wells Fargo mortgage consultant underwent two infusions of pancreatic islets, the first in January 2004, the second in August 2005. With the first injection, control of his type I diabetes improved dramatically, and with the second injection, he was able to do away with insulin injections altogether.

Barriga's islet transplant was the first to be performed in Northern California. In the procedure, pancreatic islets, which contain insulin-secreting beta cells, are retrieved through extensive processing of a cadaver donor pancreas. They are then injected into the patient without need for major surgery. Most patients require several infusions of islets to achieve insulin independence.

The islet transplants have been a life-saving procedure for Barriga, age 36, who was diagnosed at the age of 18 with type I diabetes. He was among the subgroup of diabetics who have great difficulty controlling their blood sugar levels. His body did not give the usual warning signs that his blood sugar was falling. Instead it would drop rapidly, causing him to lose consciousness. Emergency room visits were all too frequent, said Barriga. All that has changed since his transplant. "It's a miracle," said Barriga. "You can't imagine what it's like."

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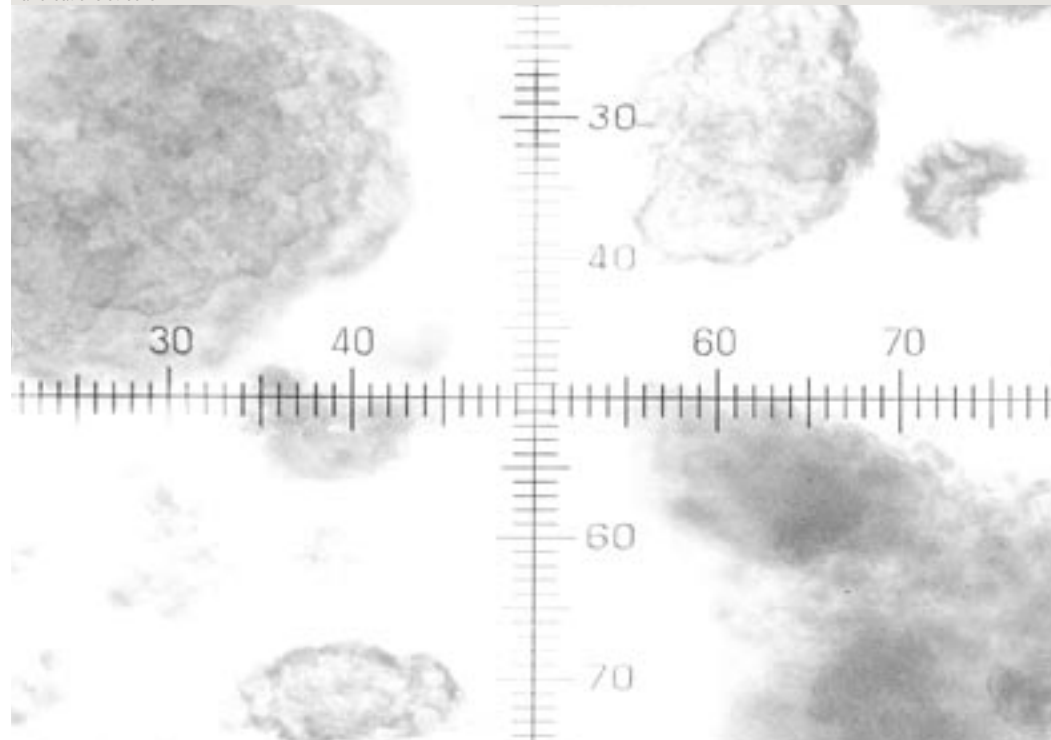
tolerate open surgery, said Posselt. However, islet transplants generally do not last as long as solid organ pancreas transplants. The beta cells appear to stop working after a period of time, requiring an additional infusion from another donor. Nonetheless, there are now patients who remain insulin independent five years following the islet infusion. Why the cells stop functioning in some cases is not clear, said Posselt. It may be that the underlying autoimmune response that produces diabetes damages the islets. Researchers also speculate that regenerative cells within the pancreas that would normally replenish beta cells are not present in the islet infusions. The presence of these regenerative cells may account for the fact that long-term graft survival and insulin independence rates are higher with solid organ transplants. Islet cell replacement may also not be effective in patients with a large body mass index and large insulin requirements.

Donor profiles are more forgiving for islet transplants, compared to solid organ transplants. Donors can have some co-morbid conditions and be up to 55 years old. The ideal donor is also overweight, said Posselt, since the islets tend to be larger than in normal weight individuals and the yield of beta cells is consequently higher.

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Beta cell transplantation is constrained by the limited supply of donor pancreases. Dr. Stock's laboratory is working with other investigators at UCSF to find ways to proliferate insulin-secreting beta cells. Drs. Stock and Posselt are also studying novel immunosuppressive drugs in patients undergoing islet transplantation because the typical steroid-based drug regimen is toxic to beta and kidney cells. Less toxic agents that act through co-stimulatory blockade of the immune system show promise as a treatment option in these patients, and will be utilized in initial clinical trials at UCSF.

Pancreatic islet cells



Combined pancreas-kidney transplants

Kidney disease develops in approximately 40 percent of patients with type I diabetes, and many eventually require a kidney transplant. Since 1989 UCSF has performed combined pancreas-kidney transplants in more than 350 diabetic patients. The double transplant corrects patients' renal failure and greatly improves their blood sugar control without the need for insulin. In addition, it may slow the development of other diabetic complications such as diabetic retinopathy, neuropathy and vascular disease.

Prior to the mid-1990s, the rate of organ rejection in pancreatic transplantation was frustratingly high. Success rates have improved dramatically, thanks to better immunosuppressive drugs. Rejection rates have dropped from 80 percent to less than 20 percent in the last five to 10 years. A pancreas transplant usually delivers on its

promise of erasing the underlying diabetes. Approximately 90 percent of patients who receive a new pancreas no longer need to take insulin after surgery. Many of these patients remain insulin independent five to 10 years after the transplant.

A pancreas transplant poses significant surgical risks, so patients must be physically able to undergo the procedure. The supply of donor organs is limited. For a solid organ transplant, the pancreas must be in near perfect condition, said Stock. Most cells within the pancreas produce digestive enzymes; any leakage from damage to the organ poses a risk to the recipient. To ensure that the pancreas is in optimal condition, deceased donors are generally 45 years of age or younger, with no underlying disease.

CONSULTATIONS AND REFERRALS

For more information about solid organ pancreas or islet transplantation, please call 415/353-1551.

PANCREAS-KIDNEY TRANSPLANTS (Adults: 7/1/99 – 6/30/04)

One-year graft survival: 98%
One-year patient survival: 98%
Three-year graft survival: 88%
Three-year patient survival: 92%

PANCREAS TRANSPLANT (Adults: 7/1/99 – 6/30/04)

One-year graft survival: 79%
One-year patient survival: 92%
Three-year graft survival: 100%
Three-year patient survival: 100%

Surgical Director: Peter Stock, MD
Medical Director: Flavio Vincenti, MD

OPTN/UNOS Standardized RFI v 5.5

KIDNEY TRANSPLANTATION

UCSF's largest transplant service is its kidney program. More kidney transplants have been performed at UCSF than at any other institution in the world – approximately 7,500 since the program began in 1964. Each year the transplant team evaluates about 1,200 patients and performs more than 250 kidney transplants. Its one-year success rate is the highest of all Northern California programs, according to program director John Roberts, MD.

UCSF has been a leader in living donor kidney transplants; these now represent 50 percent of donor organs in the program. The living donor option has several advantages over the traditional wait for a deceased donor. Wait time to transplantation is typically shorter when a friend or relative is able to serve as a living donor. Kidneys from living donors last longer than those obtained from deceased donors; one half of living donor kidneys are still functioning 10 years after transplantation, compared to one third of cadaver kidneys.

In 1999, UCSF transplant surgeon Chris Freise, MD, and colleagues began harvesting donor kidneys with a laparoscopic procedure rather than traditional open nephrectomy. As a result of improvements in the operative technique, almost all living donor kidneys are now obtained in this less invasive manner, shortening the recovery time for the donor.

Expanding the donor pool

In cooperation with the United Network for Organ Sharing (UNOS), UCSF offers several options to expand the availability of living donor kidney transplants. Patients who have relatives or friends who wish to donate a kidney, but who are not compatible with the prospective recipient, can donate to someone near the top of the deceased donor wait list; the prospective recipient then takes that person's place on the deceased donor wait list. Paired exchange allows two living donors and two recipients to undergo surgery at the same time, exchanging kidneys to make a compatible match. Working with the UCSF Immunogenetics and Transplant Laboratory headed by Lee Ann Baxter-Lowe, PhD, the kidney transplant program offers several options for overcoming immunological incompatibility between donor and

recipient. When the donor and recipient antibody profiles do not match (positive cross-match), the kidney transplant recipient may undergo several plasmapheresis treatments before and after transplant surgery to remove antibodies that could lead to rejection. This approach is also being used to permit kidney transplantation despite blood group differences between the donor and recipient.

UCSF accepts kidneys from an expanded deceased donor list, including individuals over 60 or with some underlying disease. These are carefully matched with selected recipients. Kidneys from donors with hepatitis C, for example, can be transplanted into recipients with the virus. UCSF has also been a leader in the field of kidney transplantation in HIV-positive patients (See story on page 7).

Interdisciplinary effort

Kidney transplant program medical director Stephen Tomlanovich, MD, credits a close-knit group of physicians and nurse coordinators with the program's high success rates. Since the early 1970s, UCSF has worked to seamlessly combine all aspects of care. "Many of the issues patients deal with in kidney transplantation are not so much surgical as medical," said Tomlanovich. These include managing organ rejection and the side effects that can accompany antirejection medications, as well as co-morbidities. Increasing numbers of older patients with complex medical histories are being transplanted, requiring careful follow-up. The team also works with patients who have undergone bariatric surgery to reduce their weight and become eligible for a kidney transplant.

Under the leadership of Flavio Vincenti, MD, UCSF has for many years been a leading participant in trials of new immunosuppressive agents. Several novel biologic agents are being tested in an effort to facilitate drug withdrawal and induce a state of tolerance without the need for maintenance immunosuppression.

CONSULTATIONS AND REFERRALS

For more information, please call the kidney transplant program at 415/353-1551. (Patient assessment is offered in San Francisco and at clinics in Mountain View, Fresno, Stockton and San Luis Obispo, CA, and in Hilo and Honolulu, HI.)

KIDNEY TRANSPLANTS
(7/1/99 – 6/30/04)

Adults (age 18+)
One-year graft survival: 94%
One-year patient survival: 97%
Three-year graft survival: 89%
Three-year patient survival: 94%

Pediatric (under age 18)
One-year patient survival: 100%
Three-year patient survival: 100%

Surgical Director: John Roberts, MD
Medical Director: Steve Tomlanovich, MD (adult),
Robert Mathias, MD (pediatrics)

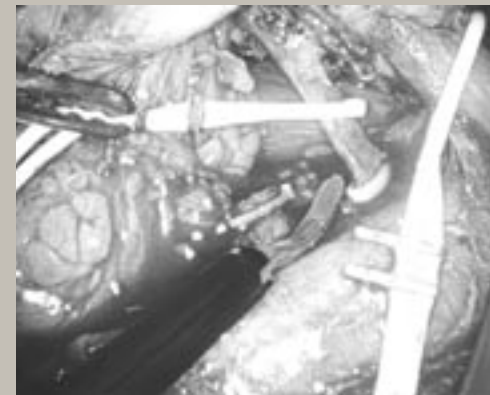
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CT scan showing blood supply to the kidneys



Donor kidney – vein stapled in preparation for removal



Donor kidney – isolation of arteries

LIVER TRANSPLANTS (Adult: 7/1/99 – 6/30/04)

One-year graft survival: 91%
One-year patient survival: 92%
Three-year graft survival: 81%
Three-year patient survival: 86%

(Pediatric: 7/1/99 – 6/30/04)
One-year graft survival: 90%
One-year patient survival: 96%
Three-year graft survival: 64%
Three-year patient survival: 70%

Surgical Director: John Roberts, MD
Medical Director: Tony Bass, MD (adult),
Philip Rosenthal, MD (pediatrics)

OPTN/UNOS Standardized RFI v 5.5

Preoperative scans used to define anatomy prior to donor hepatectomy for living donor transplant



CT cholangiogram used to define bile duct anatomy



CT scan showing donor liver – used to determine liver volume



CT scan showing donor liver regeneration six months after donation

Liver Transplant Research

UCSF is one of nine institutions participating in an NIH-sponsored study of donor and recipient outcomes in adult-to-adult living donor transplants. The campus also has an NIH grant to examine the feasibility of withdrawing immunosuppression in pediatric recipients of living donor transplants. There has been some success in doing this, said Roberts, but researchers are looking for markers of immune responses to help determine which young patients can safely be weaned from immunosuppressive medications.

LIVER TRANSPLANTATION

The UCSF liver transplantation service, directed by John Roberts, MD, is noted for excellent success rates for both cadaveric and living donor transplants. Current Surgery Department Chair Nancy Ascher, MD, PhD, and Roberts started the program in 1988. Since then, 1,830 liver transplants have been performed at UCSF.

Outcomes for cadaveric donor liver transplants at UCSF are superior, with a 92 percent one-year patient survival rate, compared to an 87 percent average nationwide. Results for living donor liver transplants are among the best in the United States, according to Roberts. The excellent outcomes are due in large part to the close working relationship between the surgical, hepatology and nursing teams that care for patients, supported by specialists in anesthesiology, infectious diseases and many other disciplines.

Liver transplantation is performed in selected patients with congenital or acquired end-stage cirrhosis, hepatic-based metabolic disorders, Budd-Chiari syndrome, primary hepatic malignancy and fulminant liver failure. Patients range in age from infants to the elderly.

Living donor transplants

In comparison to other institutions, UCSF performs an unusually high number of living donor liver transplants. The technique takes advantage of the liver's ability to regenerate itself in both donor and recipient. A compatible donor, typically a family member, donates a segment of liver, which then grows in the recipient to an appropriate size within a few months. The donor's remaining liver remodels itself at a somewhat slower rate.

The living donor program at UCSF began in 1992 with adult-to-pediatric liver transplants; 66 have been performed to date. Based on the success of the pediatric program, adult-to-adult transplants began in 2000, with 91 performed to date.

Because the supply of deceased donor organs is limited, recipients of cadaver livers are typically very ill before they receive a transplant. In contrast, the living donor option allows patients to undergo a transplant before their liver failure has progressed to an extreme stage.

The UCSF program specializes in innovative approaches to evaluation of the donor, who must be a healthy adult ranging in age from 18 to 55 years. Physicians routinely use pre-operative CT examination of the bile duct with contrast dye to highlight the biliary tree and determine where the donor liver should be divided during surgery.

CONSULTATIONS AND REFERRALS

For more information, please call the UCSF Liver Transplant program at 415/353-1888.

BOWEL TRANSPLANTS

It is not unusual for children and adults with intestinal failure to develop life-threatening complications from administration of total parenteral nutrition (TPN). Severe repeated infections, loss of intravenous access and liver failure can occur with long-term use of this intravenous form of liquid nutrition. Through the multidisciplinary UCSF Intestinal Rehabilitation and Transplantation Program, small bowel transplantation is offered at UCSF to carefully selected patients who can no longer tolerate TPN.

A significant percentage of patients who are TPN dependent can be slowly transitioned to oral feedings with the help of a specialized team that includes adult and pediatric gastroenterologists, surgeons, dietitians, nurses, pharmacists and social workers. Treatment options can include specialized nutrition support and bowel lengthening procedures. As a treatment of last resort, a small bowel transplant may be considered, according to Sang-Mo Kang, MD, surgical director of the UCSF program. Gastroenterologist Uri Ladabaum, MD, serves as medical director of the adult component of the program; pediatric gastroenterologist Sue J. Rhee, MD, oversees the care of children.

Due to advances in immunosuppressive regimens, results of small bowel transplantation have improved over the last 15 years to the point where the procedure is no longer considered experimental, said Kang. However, overall survival is not high because the immunosuppression required to manage graft rejection makes patients prone to infections. After the procedure, patients require months of intensive monitoring to make sure their new bowel is functioning adequately.

Despite these constraints, bowel transplantation can significantly prolong and improve quality of life in carefully selected patients who have not responded to other interventions, said Kang.

CONSULTATIONS AND REFERRALS

For more information, please contact the UCSF Intestinal Rehabilitation and Transplantation Program at 877/SM-BOWEL or 877/762-6935.

HEART TRANSPLANTATION

UCSF's heart transplant program has seen rapid growth in the past three years, since the arrival of Charles Hoopes, MD, surgical director of cardiopulmonary transplantation. Twenty-one heart transplants were performed at UCSF in 2005. The program is unusual in that approximately 20 percent of patients receive a kidney transplant along with their new heart. That percentage of combined heart-kidney transplants is higher than other programs in the country, said Hoopes.

"In the past, kidney failure was considered a reason not to perform a heart transplant," said Hoopes. "The assumption was that you had missed the window of opportunity for cardiac transplant once the patient had progressive renal insufficiency." Programs like UCSF's have demonstrated that is not the case; combined organ transplant patients can do very well. The procedure challenges surgeons and heart failure specialists to weigh complex variables. Patients who undergo heart transplants typically are severely ill. By the time they are transplanted, their kidney function is often impaired to some extent, and it is not unusual for heart transplant patients to develop renal insufficiency a few years after they receive their new heart. By transplanting both organs simultaneously, it is possible to improve renal function early on. But transplanting a kidney in a patient with only moderate renal

The UCSF Heart and Vascular Center has been designated a center of excellence in heart transplants by Blue Cross and Blue Shield, both of California. The designations – Blue Shield in January and Blue Cross in February – were issued after a review of UCSF's heart transplant results and its performance against industry benchmarks. As a center of excellence, UCSF may perform heart transplant surgery and provide post-transplant care to Blue Cross and Blue Shield health plan members with heart failure.

Heart transplantation is only one treatment option at UCSF for heart failure patients. Under the direction of J. Donald Hill, MD, surgical director of the UCSF heart failure program, surgeons work with cardiologists and imaging specialists to improve quality of life in patients who are not responding adequately to medical management. Procedures may include surgical approaches to left ventricular remodeling and include the use of mechanical assist devices to aid the pumping action of a failing heart.

failure removes a cadaver kidney from a limited donor pool with a long recipient wait list, said Hoopes. It is also not clear if performing a combined heart and kidney transplant offers a survival benefit over performing the transplants sequentially.

Another distinguishing mark of the UCSF heart transplant program is that it is one of a very few programs to have transplanted patients who suffer severe heart damage from Chagas' disease. This parasitic infection is common in Central America and occasionally causes severe cardiomyopathy. With a large immigrant population in Northern California, UCSF treats a substantial number of patients for Chagas'. Of the dozen heart transplants historically performed in patients with Chagas' disease within the United States, said Hoopes, two took place last year at UCSF.

Although the UCSF heart transplant program has grown over the past three years, recipient waiting lists have declined nationally during that time while the number of heart transplants performed annually has remained stable at approximately 2,000 each year. Improved medical management, surgical approaches to heart failure and mechanical assist devices are thought to be responsible for the lower numbers, said Hoopes. But some heart specialists foresee a surge in the demand for heart transplantation in the future as the patient population ages and palliative care for symptomatic heart failure becomes ineffective.

LUNG TRANSPLANTATION

UCSF performs about 35 lung transplants each year, making it one of busiest lung transplant programs in California. Half the lung transplants performed at UCSF are for interstitial lung diseases, such as idiopathic pulmonary fibrosis. UCSF specialists treat a large number of patients for this disease, which is often complicated by pulmonary hypertension.

The UCSF program is known for its willingness to evaluate patients who might not meet historical criteria for lung transplantation. These include patients who are undergoing a second lung transplant, pulmonary fibrosis patients with severe right heart failure, cystic fibrosis patients with drug resistant infections, patients with scleroderma and rheumatological diseases, and patients with acute respiratory decompensation requiring mechanical support. For more detailed information on lung transplantation at UCSF, see the spring 2005 issue of *Inside Surgery* at www.ucsfhealth.org/common/pubs/surgery/spring2005.pdf.

CONSULTATIONS AND REFERRALS

For more information about heart and lung transplantation, please contact Charles Hoopes, MD, at 415/353-4145.

HEART TRANSPLANTS
(1/1/02- 6/30/04)

One-year graft survival: 89%
One-year patient survival: 89%

Surgical Director: Charles Hoopes, MD
Medical Director: Teresa DeMarco, MD

LUNG TRANSPLANTS
(1/1/02 – 6/30/04)

One-year graft survival: 85%
One-year patient survival: 86%

Surgical Director: Charles Hoopes, MD
Medical Director: Jeffrey Golden, MD

Scientific Registry of Transplant Recipients 1/10/06

TRANSPLANT RESEARCH

Transplantation in HIV-positive patients

UCSF transplant surgeon Peter Stock, MD, PhD, leads a multicenter NIH grant examining the safety and efficacy of liver and kidney transplantation in HIV-positive patients. It is a pressing issue, said Stock, given that most HIV-infected individuals no longer die from progression of HIV to AIDS. Highly active anti-retroviral therapy (HAART) has made HIV infection a chronic disease. When patients die, it is from co-morbid conditions such as liver failure caused by hepatitis B or C infection. HIV-induced kidney failure is also a life-threatening problem, particularly among African Americans.

Early results in transplanting HIV-positive patients are very positive, said Stock. UCSF has performed more than 40 transplants in HIV-positive patients since 2000. Patients must respond well to HAART therapy to be candidates for transplantation.

As part of the grant, researchers in laboratories across the country are also looking at how immunosuppression affects HIV-positive patients. They are examining not only graft rejection, but also how the patient's immune response changes toward HIV and other co-pathogens, such as hepatitis B, hepatitis C, cytomegalovirus and human papilloma virus, which are frequently associated with HIV.

Improving immune tolerance to transplanted tissue

The immune system's rejection of foreign tissue remains a major stumbling block to the long-term success of organ transplantation. Working in mice, researchers in Sang-Mo Kang's laboratory are studying ways to genetically modify donor dendritic cells so that they can specifically eliminate the T cells that cause rejection. Their goal is to inactivate the immune system's response to a transplanted organ, while retaining its ability to combat infections and cancer. Such donor-specific tolerance would eliminate the serious side effects associated with the long-term use of immunosuppressive medications, which are currently needed to manage organ rejection. Kang's team is also working to define the fundamental mechanisms of transplant rejection and tolerance.

APPOINTMENTS

Holger Willenbring, MD

Assistant Professor in Residence
Program in Developmental and
Stem Cell Biology

Jessica Gosnell, MD

Assistant Professor in Residence
General Surgery

Rochelle Dicker, MD

Assistant Professor in Residence,
Trauma and Critical Care
Medicine, SFGH

HONORS AND AWARDS

Nancy Ascher, MD, PhD,

received the annual Thomas
E. Starzl Prize in Surgery and
Immunology at ceremonies hon-
oring Dr. Starzl's 80th birthday
on March 10th at the University
of Pittsburgh. Ascher, professor
and chair of surgery at UCSF, is
a past president of the American
Society of Transplant Surgeons.

The Department of Surgery appreciates the support of the following generous individuals to the Transplant Service:

Anonymous

Mr. William K. Coblenz and Mrs. Jean Berlin Coblenz

Mr. Nolan M. Davis and Mrs. Velia Davis

Mr. Quong M. Doo and Mrs. Jennie Doo

Mr. Charles Fernald and Mrs. Susan Fernald

The Connie Frank Foundation

Mr. Roger D. Friedberger and Mrs. Nancy F. Friedberger

Mr. Stanley D. Goldring

Dr. Ibrahim Hefni* and Mrs. Wensley Hefni

The K. H. Hofmann Foundation

Estate of Frances Jerue

Mr. Michael Keith and Mrs. Lois Anne Keith

Mr. Michael K.H. Leung

Mr. Richard D. Long and Mrs. Dorothy Long

Dr. Lydia A. Lukian

Ms. Zoya A. Lukian

Mr. Dinesh Maniar

Estate of Allan H. Nagata*

Mr. Charles John Pankow Jr.* and Mrs. Doris J. Pankow

Estate of Gretchen Gratz Potter

Mr. Steven J. Scarpa

Mr. Francis O. Scarpulla and Mrs. Karen Mondon Scarpulla

Estate of Daniel Seniuta*

Mr. Alex J. Shoofey and Mrs. Debbie L. Shoofey

Ms. Thelma Stewart

Mr. Evan C. Thompson

Mr. Marco Traniello and Mrs. Jennifer C. Traniello

Mr. James E. Wickersham* and Mrs. Mildred Wickersham*

Mr. Joseph Wu and Mrs. Cathy Wu

*Indicates Deceased

For information on ways to support UCSF's Department of Surgery, please contact:

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Email: rvanhuffel@support.ucsf.edu

REFERRAL LIAISON SERVICE

The Referral Liaison Service offers a communication link and referral coordination for referring physicians, medical groups and health plans. For additional assistance in the referral process or information about programs and services at UCSF Medical Center and UCSF Children's Hospital, please call the Referral Liaison Service or visit the "For Health Professionals" section at ucsfhealth.org.

Contact the Referral Liaison Service at 800/444-2559 or through www.ucsfhealth.org.

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