PATRICIA WINLAND | Intestinal Transplant Recipient

“Cleveland should be proud that it has an intestinal transplant team that is dedicated to helping people.” — Patricia Winland, 41, Hillsboro, Ohio. Almost a year after gastric bypass surgery, Patricia began experiencing the symptoms of severe bowel ischemia. After spending six months in a nursing home receiving total parenteral nutrition, Patricia underwent an intestinal transplant and is now able to eat normally. She looks forward to having her ileostomy reversed in 2012.
2011 Highlights

The Intestinal Rehabilitation and Transplant Program (IRTP) completed three intestinal transplants in 2011, bringing to 20 the total number of intestinal transplants since the program’s inception in June 2008. The program received Centers for Medicare & Medicaid Services (CMS) certification for Adult Intestinal/Multivisceral Transplantation effective Dec. 15, 2010.

In addition to an increase in intestinal transplant activity, the program has experienced a dramatic increase in the number of patients with complex intestinal failure treated under the comprehensive care of dedicated gastroenterologists, surgeons, dietitians, psychiatrists and social workers. Some of these patients were treated conservatively by intervention with intestinal rehabilitation measures; others required major surgical intervention. The majority of these patients were transferred from other institutions and were from outside Ohio.

To accommodate the increase in out-of-state patient interest and referrals, the IRTP now offers MyConsult Online Medical Second Opinion for adult and pediatric patients. Following a thorough review of a patient’s medical records and diagnostic tests, staff can render a medical second opinion that includes treatment options or alternatives, as well as recommendations regarding future therapeutic considerations. Additionally, IRTP staff members have already participated in telemedicine videoconferencing — a technology that enables them to interact with patients via Skype™ to avoid unnecessary patient travel.

To better serve potential patients, both adult and pediatric, the IRTP offers a 24-hour referral line (216.312.0308) that enables prospective patients and referring physicians to reach an IRTP member at any time.

Patients with irreversible intestinal failure in whom total parenteral nutrition (TPN) has failed may be candidates for isolated small bowel, combined small bowel and liver, or multivisceral transplantation, depending on how many organs have been affected by the original disease and TPN. Other common indications for intestinal transplant in adults include dysmotility disorders and benign intra-abdominal tumors (such as desmoid tumors) that require an extensive intra-abdominal evisceration.
In the last 10 years, the outcomes of intestinal transplant have been dramatically influenced by the use of newer and more effective anti-rejection drugs. Currently, Cleveland Clinic is the only hospital in Ohio to perform adult intestinal transplants and is among only a few in the United States to do so.

Expertise

Cleveland Clinic consistently ranks as one of the top two hospitals in gastroenterology in U.S. News & World Report’s “America’s Best Hospitals” survey. In the 2011 survey, it was the top-ranked hospital in the gastroenterology category that offers intestinal transplant. Additionally, the American Society for Parenteral and Enteral Nutrition recognizes Cleveland Clinic as a program of excellence in nutrition support.

Awards

- Jeff Arnovitz, BSN, NP, CCTC, completed a second term as Marketing Director of the International Transplant Nurses Society.
- Renee Bennett, BSN, CCTN, CCTC, was named President of the International Transplant Nurses Society.
- Chris Shay-Downer, BSN, CCTC, was named President-Emeritus of the International Transplant Nurses Society.

Clinical Activities

Patients with intestinal failure are evaluated by a team of experts in nutrition that includes gastroenterologists, intestinal rehabilitation and transplant surgeons, colorectal surgeons, anesthesiologists, intensivists, dietitians, psychiatrists, pharmacists, nurses, social workers and ethicists.

When conservative measures fail, intestinal transplant is considered. Three types of intestinal transplantation are performed: isolated small bowel transplantation, combined liver and small intestine transplantation, and multivisceral transplantation.

A total of 381 patients underwent consults with the IRTP staff in 2011. Of those, 34 were screened for intestinal transplant and nine were evaluated for transplant. A total of three patients underwent intestinal transplant. The remaining patients were treated with dietary interventions and medical therapy.
Number of intestinal transplants, 2008-2011

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>4</td>
</tr>
<tr>
<td>2009</td>
<td>3</td>
</tr>
<tr>
<td>2010</td>
<td>10</td>
</tr>
<tr>
<td>2011</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
</tr>
</tbody>
</table>

* Cleveland Clinic surgeons began performing intestinal transplants in June 2008

Number of consults, screenings and evaluations by IRTP, 2004-2011

<table>
<thead>
<tr>
<th></th>
<th>Consults</th>
<th>Patients Screened</th>
<th>Patients Evaluated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>112</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>228</td>
<td>66</td>
<td>15</td>
</tr>
<tr>
<td>2009</td>
<td>259</td>
<td>75</td>
<td>18</td>
</tr>
<tr>
<td>2010</td>
<td>515</td>
<td>105</td>
<td>9</td>
</tr>
<tr>
<td>2011</td>
<td>381</td>
<td>34</td>
<td>9</td>
</tr>
</tbody>
</table>

* Cleveland Clinic surgeons began performing intestinal transplants in June 2008

Research

* Principal Investigator — Dr. Cristiano Quintini
  IRB 08-879: Outcomes of Intra-Abdominal Desmoid Tumors

* Principal Investigator — Dr. Donald Kirby
  IRB 09-079: A 24 Week Study of the Efficacy and Safety of Teduglutide in Subjects with Parenteral Nutrition-Dependent Short Bowel Syndrome

* Principal Investigator — Dr. Cristiano Quintini
  IRB 09-333: Parenteral Nutrition Associated Liver Disease in Patients with TPN Dependent Intestinal Failure
**Principal Investigator — Dr. Ezra Steiger**
IRB 09-1067: Prospective 5 Year Follow Up of Patients on Home Parenteral Nutrition for Chronic Intestinal Failure

**Principal Investigator — Dr. Ezra Steiger**
IRB 06-261: Plasma Citrulline Levels Predict Home Parenteral Nutrition Dependence in Patients with Short Bowel Syndrome

**Principal Investigator — Dr. Ezra Steiger**
IRB 5248: Registry: Intestinal Rehabilitation Program Database

**Principal Investigator — Dr. Koji Hashimoto**

**Selected Publications**


**National/International Presentations**

Quintini C. Small bowel transplantation: state-of-the-art [George Rankin Honorary Lecture]. Presented at: Cleveland Clinic 47th Annual Gastroenterology Update; November 17, 2011; Cleveland, OH.

Barco K. Intestinal rehabilitation: tricks of the trade prior to intestinal transplant. Presented at: Cleveland Clinic 47th Annual Gastroenterology Update; November 17, 2011; Cleveland, OH.


Parekh NR. Post-transplant management of chyle leak. Presented at: XII International Small Bowel Transplant Symposium; September 15, 2011; Washington, DC.

Shay-Downer C. Easing patient transition through the transplant process: what are we doing to help? Presented at: International Transplant Nurses Society University webinar.

Shay-Downer C. “Certification for transplant nurses in the United States” and “Evidence-based practice in intestinal transplantation.” Presented at: Latin American Transplant Nurses Congress; March 2011; Cartagena, Colombia.
Leadership

Donald Kirby, MD
Medical Director,
Intestinal Rehabilitation and Transplant Program

Cristiano Quintini, MD
Program Director,
Intestinal Transplant; Director, Intestinal Rehabilitation and Transplant Program

Phone number
216.445.1748

24-Hour Referral Line
216.312.0308

Fast facts
Initiated: 2008

Performed first adult intestinal transplant in Ohio: June 2008

As of Dec. 31, 2010, 20 intestinal transplants have been performed at Cleveland Clinic

Performed first sequential split liver/isolated intestinal transplant in Ohio: 2009

Performed first kidney/intestine transplant in Ohio: 2010

CMS/Medicare approval: Dec. 15, 2010

Staff

Bijan Eghtesad, MD

John J. Fung, MD, PhD

Koji Hashimoto, MD, PhD

Charles Miller, MD

Ezra Steiger, MD