World Congress on Islet/Pancreas Transplantation Shows U.S. Losing Ground

Oct 1, 2013

World transplant and diabetes leaders convened in Monterey at the International Pancreas and Islet Transplantation Association (IPITA) to discuss advances in islet and pancreas transplantation as superior therapies for treating type 1 diabetes. Amid these optimistic reports was the recognition that despite increasing rates of restoring insulin independence following pancreas and islet transplants in the U.S., the ability to carry out these innovative strategies is threatened by economic constraints.

In the U.S., challenges remain related to diminishing grant opportunities, a lengthy regulatory approval process, and limited reimbursement. Rapid expansion of islet cell transplantation, which provide very tangible protection in patients with frequent acute complications, has followed government approval and full national or regional health care coverage for these medical treatments in the province of Alberta in Canada, the United Kingdom, Switzerland, Belgium, Denmark, Norway and Sweden, and Australia. This financial support, along with less stringent regulatory demands, has allowed Canada and the listed European countries to collectively outperform the U.S. in pancreas and islet transplant activity for the first time.

Since 1999, European centers performed nearly twice the number of islet transplants than were done in the United States. Similarly, data presented in Monterey by Angelika Gruessner, PhD showed that the number of pancreas transplants in the United States has fallen by 30% since 2005. This decline in transplantations comes at a time when the rate of insulin independence at five years after transplant approaches 90 percent when performed with a kidney transplant for patients with kidney failure. Other data presented by several centers in the U.S., Canada, and Europe showed that insulin independence can now also be maintained for five years and longer in islet transplant recipients.

There were also exciting basic science reports on significant advances in creating new sources of beta cells from embryonic and induced pluripotent stem cells, as well as from pig pancreases. Improvements in immunosuppression and strategies in transplantation tolerance relevant to all strategies for beta cell replacement were also highlighted.
Paul R.V. Johnson, MD, outgoing president of IPITA states, ?It is clear from the clinical data presented at the World Congress over the last few days, that pancreas and islet transplantation can now reverse diabetes in an increasing number of patients. It is essential that healthcare programs around the world prioritize funding for these treatments so that people with this debilitating disease can truly benefit.?

Newly elected president of IPITA, Bernhard Hering, MD, University of Minnesota, added, "Pancreas and islet transplantation are the only therapies for type 1 diabetes that reliably protect against hypoglycemia and that have the potential to reverse microvascular damage caused by hyperglycemia. We must continue this important work."

Numerous groundbreaking research advances were announced at the IPITA Congress including advances in immunosuppression, prevention of recurrent autoimmunity in pancreas and islet transplants, new islet implantation sites outside the liver, bioengineering strategies for improving islet viability, and the efficacy of new sources for deriving beta cells from stem cells.

Peter Stock, MD, PhD, chair of the IPITA World Congress and a UCSF transplant surgeon states ?If we stop funding islet work, we will lose the infrastructure for curing diabetes through beta cell replacement at a point where we have encouraging treatments. New advances promise to make these therapies even more successful and more widely applicable."

For additional information and World Congress highlights, visit the IPITA website, www.ipita2013.org [1].

Source URL: https://diabetes.ucsf.edu/news/world-congress-isletpancreas-transplantation-shows-us-losing-ground

Links