

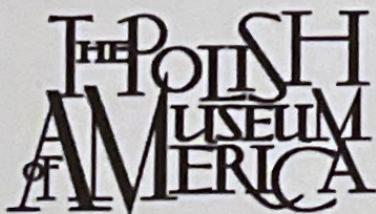


The Junior Board of the  
Polish American Medical Society  
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# 4th Polish American Youth Academic Summit: Pioneers in Medicine

October 7th, 2023 at 12pm  
Polish Museum of America



Consulate General  
of the Republic of Poland  
in Chicago



## **ORAL PRESENTATION 3**

**Title:** Pancreas after islet as well as islet after pancreas transplantation offer durable insulin independence to patients with diabetes mellitus and problematic hypoglycemia

**Presenter:** Kamila Milejczyk

**Authors:** Kamila Milejczyk BS<sup>1</sup>, Joseph Tomecki BS<sup>1</sup>, Sarah Gondek BS<sup>1</sup>, William Lin MD<sup>1</sup>, Surmai Shukla MBBS<sup>1</sup>, Peter Ciesielski BS<sup>1</sup>, Agnieszka Zawada MD PhD<sup>1</sup>, Piotr Witkowski MD PhD<sup>1</sup>

**Author affiliations:** <sup>1</sup>University of Chicago Department of Surgery, Chicago, Illinois USA

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### **INTRODUCTION**

Islet and pancreas transplantations are alternative procedures providing diabetic patients with insulin independence and optimal blood glucose control. In this study we assessed the utility of islet transplantation (ITx) after the failure of a pancreas graft and the utility of pancreas transplantation in patients with declining islet graft function.

### **METHODS AND PROCEDURES**

Cohort one included four patients with insulin-deficient diabetes and problematic hypoglycemia who were transplanted with islets allografts after the failure of prior pancreas transplants (IAP). The second cohort of four patients who had previously received islet allotransplants were transplanted with a pancreas after their islet graft function declined (PAI patients). Tacrolimus and mycophenolate were used for immunosuppression in both cohorts, however PAI patients (cohort 2) were in addition treated with prednisolone 5mg daily.

### **RESULTS**

All four (100%) IAP patients achieved independence from exogenous insulin within the first 3 months after their first islet transplant procedure. Two of them (50%) have remained insulin independent currently over 1 year after the transplant while the remaining two patients (50%) required a second ITx 6-8 months after the first one and remained insulin independent for over 3 years. Both of them required a third ITx to further extend freedom from insulin. All four patients (100%) receiving PAI had uncomplicated recoveries and clinical courses. They still maintain optimal blood glucose control without the need for exogenous insulin for a period exceeding 4-6 years after their pancreas transplant. Additionally, none of the patients have become sensitized- (no de novo HLA antibodies) after PAI or IAP transplantation.

### **CONCLUSIONS**

Pancreas and islet transplantations are alternative beta cell replacement procedures allowing successful extension of insulin independence in case one type of transplantation had initially failed.