

## **Clinical Significance of Bacterial Cultures from 28 Autologous Islet Cell Transplant Solutions.**

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Purpose: Total pancreatectomy and autologous islet cell transplantation are being investigated as a novel surgical treatment for patients with chronic pancreatitis. Preliminary data has demonstrated the presence of enteric bacteria in solutions used to harvest islet cells. Subsequently, we started culturing autologous islet solutions to determine whether any concordance existed between these cultures and postoperative infectious complications. Methods: A retrospective analysis evaluated microbiologic cultures between July 2000 and November 2003; 33 patients underwent total or completion pancreatectomy and islet cell transplantation. Five patients were excluded due to incomplete culture data. Aerobic, anaerobic and fungal cultures were performed on all islet preparation solutions. Patient charts were examined for postoperative infectious complications. Microbiologic data from these infections was compared to pretransplant islet cultures. Islet cells from each patient were tested in vitro for both function and viability. Results: Of the 28 patients, 25 (89.3%) had bacterial culture-positive media solutions. Only 4 patients (14.3%) had an infectious complication from which bacteria was isolated that corresponded to bacteria in their islet cell preparation. In vitro islet cell viability was greater than 95% in the pretransplant aliquots. Conclusion: These results suggest that transplantation of bacterial-positive islet cell solutions does not appear to increase the risk of postoperative infectious complications or impact islet cell viability. Therefore, prolonged antibiotic treatment against these specific bacteria beyond the perioperative period does not seem warranted. Copyright (c) 2005 S. Karger AG, Basel and IAP.