BACKGROUND: The goal of surgical treatment in patients with pancreatic cancer is the complete resection of tumor tissue; however, the intraoperative appraisal of resectability can be difficult. Extensive surgical exploration for definitive clear resectability may lead to R2 resections in single cases. PATIENTS: We analyzed 38 patients with pancreatic cancer with remaining macroscopic tumor tissue after pancreatic resection, as R0 resection was not possible. Patients were compared to 46 patients with unresectable cancer without distant metastases or peritoneal carcinomatosis, in which a bypass procedure was performed. RESULTS: Operating time and hospital stay were significantly longer after R2 resection. Intraoperative blood loss was significantly higher; and severe surgical complications and the need for relaparotomy were significantly more frequent after R2 resection. The 30-day mortality rate was higher after R2 resection; this difference was not statistically significant. Median survival was comparable in both groups. Two years after surgery, 22.6% of the patients after R2 resection were still alive compared to 10.9% after bypass surgery. CONCLUSION: Tumor debulking is not a treatment option in patients with advanced pancreatic cancer, but the patient is not at a disadvantage compared to bypass procedures if tumor tissue remains and R0 resection cannot be achieved after surgical exploration.