

**MICHAEL KENDRICK:** Hi, I'm Dr. Michael Kendrick, a hepatobiliary and pancreatic surgeon in the Department of Surgery at the Mayo Clinic. I'm going to talk a little bit about the laparoscopic approach for the Whipple Procedure.

Pancreatoduodenectomy, either open or laparoscopic, is a complex abdominal operation required for patients with both benign or malignant diseases of the pancreas, duodenum or bile duct. Recently, minimally invasive approaches for pancreatoduodenectomy have been established.

Here at Mayo Clinic, we have a vast experience with nearly 200 procedures performed laparoscopic. And are just now starting to compare objectively the outcomes of these two approaches. While there are clearly no randomized controlled trials to compare these outcomes, it appears that there is less post-operative pain, less hernia, wound infection, shorter hospital stay, less blood loss, and possibly improve quality life for patients undergoing the laparoscopic approach over the conventional open approach.

We currently perform over 150 pancreatoduodenectomy each year, and approximately half of those now are performed laparoscopically. The laparoscopic approach is also possible for patients that require major venous resection, which is occasionally necessary in patients with malignant involvement of the portal or super mesenteric vein. Some of the main advantages that we hope to find with the laparoscopic approach, are those that will affect the outcomes of the patient most. Namely, quality of life and oncological outcomes.

When comparing the laparoscopic to the open approach, we found that there is no difference in the extent of resection, the incidence of margin negative disease, and the short term survival. However further studies are necessary to objectively evaluate substantiate these findings.