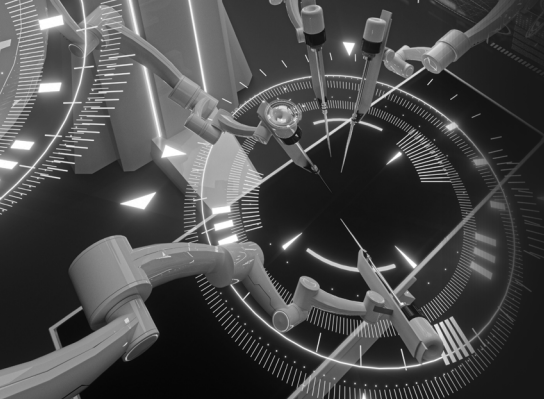




Bölüm 19

PANKREAS HASTALIKLARINDA LAPAROSKOPIK CERRAHİ

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GİRİŞ

Pankreas hastalıklarında laparoskopik cerrahi özellikle son 20-30 yıl içerisinde oldukça ilerleme kaydetmiştir. Ama bu ilerleme; pankreasın gevşek doku yapısı, retroperitoneal alanda olması, zor ulaşılması, çevre damarlar ile yakın komşuluğu nedeniyle ciddi kanamalara neden olabilmesi, pankreasa zor ulaşılması ve pankreas cerrahisi sonrası olası komplikasyonlar nedeniyle sınırlıdır. Bununla beraber teknolojiadaki gelişmeler ve cerrahi deneyimler sayesinde pankreasın minimal invaziv cerrahisinde ilerlemeler olmuştur.

Pankreasın laparoskopik cerrahisi oldukça geniş bir alanda olup benign hastalıklardan malign hastalıklara ve inflamatuvar süreçlerden enfektif süreçlere kadar geniş bir alanda kullanılabilmektedir. Laparoskopik cerrahi tecrübeli elerde güvenli ve avantajlı olabilmektedir.(1)

Cuschieri tarafından ilk defa 1994 yılında laparoskopik distal pankreatektomi yapılmıştır.(2) Yine aynı yıl Gagner ve Pump tarafından da 30 yaşında kadın hasta da kronik pankreatitiden dolayı laparoskopik olarak pilor koruyucu pankreatikoduodenektomi yapılmıştır. (3)

Pankreas cerrahisi; en sık pankreas kanserleri, periampuller bölge tümörleri ve premalign pankreas kistleri için yapılmaktadır. Lezyonların yerleşimlerine göre en sık pankreatikoduodenektomi ve distal pankreatektomi yapılmaktadır.

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Laparoskopik ameliyatlar; açık ameliyatlara göre daha uzun sürmektedir. Öğrenme döneminde bu süre daha da artabilmektedir. Laparoskopik cerrahi sırasında başladıktan sonra diseksiyon ve cerrahi aşamalarda yeterli ilerleme kaydedilemiyorsa, açığa geçme konusunda tereddüt edilmemelidir.

Sonuç olarak artan vaka sayıları ve deneyim ile beraber, seçilmiş vakalarda LPD daha güvenli olarak yapılabilmektedir. LPD vakaları yapıldıkça, ek olarak vasküler rezeksiyon veya çevre organ rezeksiyonları gerektiren vakalarda da laparoskopi kullanılabilecektir.

KAYNAKLAR

1. Kaistha S, et al. Laparoscopic surgery in pancreatic diseases: Pushing the boundaries, Med J Armed Forces India. (2018), <https://doi.org/10.1016/j.mjafi.2018.02.003>.
2. Cuschieri, A. Laparoscopic surgery of the pancreas. J. R. Coll. Surg. Edinb. 39, 178–184 (1994).
3. Gagner M, Pomp A (1994) Laparoscopic pylorus-preserving pancreatoduodenectomy. Surg Endosc 8:408–410.
4. Tol, J. A. et al. Definition of a standard lymphadenectomy in surgery for pancreatic ductal adenocarcinoma: a consensus statement by the International Study Group on Pancreatic Surgery (ISGPS). Surgery 156, 591–600 (2014).
5. Howlader, N. et al. SEER Cancer Statistics Review, 1975–2011. National Cancer Institute [online], http://seer.cancer.gov/csr/1975_2011/ (2014).
6. Rahib, L. et al. Projecting cancer incidence and deaths to 2030: the unexpected burden of thyroid, liver, and pancreas cancers in the United States. Cancer Res. 74, 2913–2921 (2014).
7. Bliss, L. A., Witkowski, E. R., Yang, C. J. & Tseng, J. F. Outcomes in operative management of pancreatic cancer. J. Surg. Oncol. 110, 592–598 (2014).
8. Haeno, H. et al. Computational modeling of pancreatic cancer reveals kinetics of metastasis suggesting optimum treatment strategies. Cell 148, 362–375 (2012).
9. Kendrick, M. L. & Sclabas, G. M. Major venous resection during total laparoscopic pancreaticoduodenectomy. HPB (Oxford) 13, 454–458 (2011).
10. Croome, K. P. et al. Pancreaticoduodenectomy with major vascular resection: a comparison of laparoscopic versus open approaches. J. Gastrointest. Surg. 19, 189–194 (2015).
11. Afridi SA, Kazaryan AM, Marangos IP, Rösok BI, Fretland ÅA, Yaqub S, et al. Laparoscopic surgery for solid pseudopapillary tumor of the pancreas. JSLS. 2014 Apr-Jun. 18 (2):236–42.
12. Tenner S, Sica G, Hughes M, Noordhoek E, Feng S, Zinner M, Banks PA. Relationship of necrosis to organ failure in severe acute pancreatitis. Gastroenterology 1997;113:899–903.
13. Dominioni L, Chiappa A, Bianchi V, Interdonato PF, Festi L, Carcano G, Benevento A, Dionigi R. Infected pancreatic necrosis complicated by multiple organ failure. Hepatogastroenterology 1997;44:968–974.
14. van Goor H, Sluiter WJ, Bleichrodt RP. Early and long term results of necrosectomy and planned re-exploration for infected pancreatic necrosis. Eur J Surg 1997; 163: 611–618.
15. Farkas G, Marten J, Mandi Y, Szederkenyi E, Balogh A. Progress in the management and treatment of infected pancreatic necrosis. Scand J Gastroenterol Suppl 1998;228: 31–337.
16. Raraty MG, Halloran CM, Dodd S, et al: Minimal access retroperitoneal pancreatic necrosectomy: improvement in morbidity and mortality with a less invasive approach. Ann Surg 2010; 251: 787–793.
17. Rodriguez JR, Razo AO, Targarona J, et al: Debridement and closed packing for sterile or infected necrotizing pancreatitis: insights into indications and outcomes in 167 patients. Ann Surg 2008; 247: 294–299.

18. Adamson GD, Cuschieri A: Multimedia article. Laparoscopic infracolic necrosectomy for infected pancreatic necrosis. *Surg Endosc* 2003; 17: 1675.
19. Parekh D: Laparoscopic-assisted pancreatic necrosectomy: a new surgical option for treatment of severe necrotizing pancreatitis. *Arch Surg* 2006; 141: 895–902; discussion 902–903.
20. Pamoukian VN, Gagner M. Laparoscopic necrosectomy for acute necrotizing pancreatitis. *Journal of Hepato-Biliary-Pancreatic Surgery*. 01 Haziran 2001;8(3):221-3.
21. Ammori BJ: Laparoscopic transgastric pancreatic necrosectomy for infected pancreatic necrosis. *Surg Endosc* 2002; 16: 1362.
22. Babu BI, Siriwardena AK: Current status of minimally invasive necrosectomy for postinflammatory pancreatic necrosis. *HPB (Oxford)* 2009; 11: 96–102.
23. Holzman MD, Reintgen KL, Tyler DS, Pappas TN. The role of laparoscopy in the management of suspected pancreatic and periampullary malignancies. *J Gastrointest Surg* 1997; 1:236.
24. Nieveen van Dijkum EJ, Romijn MG, Terwee CB, et al. Laparoscopic staging and subsequent palliation in patients with peripancreatic carcinoma. *Ann Surg* 2003; 237:66.
25. Maire F, Sauvanet A, Trivin F, et al. Staging of pancreatic head adenocarcinoma with spiral CT and endoscopic ultrasonography: an indirect evaluation of the usefulness of laparoscopy. *Pancreatolology* 2004; 4:436.
26. [Guideline] National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology. Pancreatic Adenocarcinoma. NCCN. Available at http://www.nccn.org/professionals/physician_gls/pdf/pancreatic.pdf. Version 1.2020 — November 26, 2019; Accessed: January 10, 2020.
27. Dedieu A, Rault A, Collet D, Masson B, Sa Cunha A. Laparoscopic enucleation of pancreatic neoplasm. *Surg Endosc*. 2011;25:572–576.
28. Fernández-Cruz L, Molina V, Vallejos R, Jiménez Chavarria E, López-Boado MA, Ferrer J. Outcome after laparoscopic enucleation for non-functional neuroendocrine pancreatic tumours. *HPB (Oxford)* 2012;14:171–176.
29. Kuroki T, Eguchi S. Laparoscopic parenchyma-sparing pancreatectomy. *J Hepatobiliary Pancreat Sci*. 2014;21:323–327.
30. Partington PF, Rochelle RE. Modified Puestow procedure for retrograde drainage of the pancreatic duct. *Ann Surg*. 1963;152:1037–1043.
31. Sudo T, Murakami Y, Uemura K, et al. Short- and long-term results of lateral pancreaticojejunostomy for chronic pancreatitis: a retrospective Japanese single-center study. *J Hepatobiliary Pancreat Sci*. 2014;21(6):426–432.
32. Khaled YS, Ammori BJ. Laparoscopic lateral pancreaticojejunostomy and laparoscopic Berne modification of Beger procedure for the treatment of chronic pancreatitis: the first UK experience. *Surg Laparosc Endosc Percutan Tech*. 2014;24(5):e178–e182.
33. Malik AA, Isnain HG, Khan A, et al. Laparoscopic cystgastrostomy: a Pakistani perspective. *J Pak Med Assoc*. 2015;65(5):565–568.
34. Cuschieri A, Jakimowicz JJ, van Spreeuwel J (1996) Laparoscopic distal 70% pancreatectomy and splenectomy for chronic pancreatitis. *Ann Surg* 223:280–285.
35. Nakamura M, Nakashima H: Laparoscopic distal pancreatectomy and pancreatoduodenectomy: is it worthwhile? A meta-analysis of laparoscopic pancreatectomy. *J Hepatobiliary Pancreat Sci* 2013; 20: 421–428.
36. Kooby DA, Gillespie T, Bentrem D, et al: Leftsided pancreatectomy: a multicenter comparison of laparoscopic and open approaches. *Ann Surg* 2008; 248: 438–446.
37. Yang DJ, Xiong JJ, Lu HM, Wei Y, Zhang L, Lu S, Hu WM. The oncological safety in minimally invasive versus open distal pancreatectomy for pancreatic ductal adenocarcinoma: a systematic review and meta-analysis. *Sci Rep*. 2019; 9:1159.
38. Van Hilst J, de Rooij T, Klompmaker S, et al.; European Consortium on Minimally Invasive Pancreatic Surgery (E-MIPS). Minimally Invasive versus Open Distal Pancreatectomy for Ductal Adenocarcinoma (DIPLOMA): A Pan-European Propensity Score Matched Study. *Ann Surg*. 2019; 269:10-17.

39. Fernández-Cruz L, Cesar-Borges G, López- Boado MA, et al: Minimally invasive surgery of the pancreas in progress. *Langenbecks Arch Surg* 2005; 390: 342–354.
40. Kooby DA, Chu CK: Laparoscopic management of pancreatic malignancies. *Surg Clin North Am* 2010; 90: 427–446.
41. Fernández-Cruz L, Cosa R, Blanco L, et al: Curative laparoscopic resection for pancreatic neoplasms: a critical analysis from a single institution. *J Gastrointest Surg* 2007; 11: 1607– 1621; discussion 1621–1622.
42. Zhou W, Lv R, Wang X, et al: Stapler vs suture closure of pancreatic remnant after distal pancreatectomy: a meta-analysis. *Am J Surg* 2010; 200: 529–536.
43. Bilimoria KY, Bentrem DJ, Ko CY, et al: Multimodality therapy for pancreatic cancer in the U.S.: utilization, outcomes, and the effect of hospital volume. *Cancer* 2007; 110: 1227–1234.
44. Klompmaker S, van Hilst J, Wellner UF, Busch OR, Coratti A, D'Hondt M, Dokmak S, Festen S, Kerem M, et al; Europeanconsortium on Minimally Invasive Pancreatic Surgery (E-MIPS). Outcomes After Minimally-invasive Versus Open Pancreatoduodenectomy: A Pan-European Propensity Score Matched Study. *Ann Surg*. 2018;
45. Al-Taan OS, Stephenson JA, Briggs C, et al: Laparoscopic pancreatic surgery: a review of present results and future prospects. *HPB (Oxford)* 2010; 12:239–243.
46. Asbun HJ, Stauffer JA: Laparoscopic vs open pancreaticoduodenectomy: overall outcomes and severity of complications using the accordion severity grading system. *J Am Coll Surg* 2012; 215: 810–819.
47. Peng L, Zhou Z, Cao Z, Wu W, Xiao W, Cao J. Long-Term Oncological Outcomes in Laparoscopic Versus Open Pancreaticoduodenectomy for Pancreatic Cancer: A Systematic Review and Meta-Analysis. *J Laparoendosc Adv Surg Tech A*. 2019 ;29(6):759-769.
48. Chapman BC, Gleisner A, Ibrahim-Zada I, Overbey DM, Paniccia A, Meguid C, Brauer B, Gajdos C, McCarter MD, Schulick RD, Edil BH. Laparoscopic pancreaticoduodenectomy: changing the management of ampullary neoplasms. *Surg Endosc*. 2018;32(2):915-922.