

BÖLÜM 11

Gastroenterik İnce Bağırsak Fistülleri ve Gastrobiliyer Fistüller

Orçun ALPAY¹

GASTROİNTESTİNAL FİSTÜLLER

Fistül, iki epitelize yüzey arasındaki herhangi bir abnormal anatominin bağlantıdır ve birçok klinik durumu içeren bir tanımdır. Batın içi fistüller; gastrointestinal sistem veya genitoüriner sistem gibi içi boş bir organın epitelize olmuş bir yüzeyinden veya karaciğer, pankreas kanallarından kaynaklanabilir.

Klasifikasyon

Genel olarak fistüller anatomi ve fizyolojilerine göre sınıflandırılır. Anatomik sınıflandırmalar fistülün orijinine ve drenaj noktasına göre yapılır. Bu anatomik sınıflandırma sisteme göre fistüller internal ve eksternal olarak ikiye ayrılırlar. Internal fistüller iki epitel yüzeyi arasında drene olurken, eksternal fistüller vücutun dış yüzeyine drene olur. Fizyolojik sınıflandırmalar ve hacim sınıflandırmaları 24 saatlik periyottaki fistül debisine göre belirlenir. Yüksek debili ($>500\text{ml/gün}$) veya düşük debili ($<200\text{ml/gün}$) olarak ayrırlırlar. Etiyolojiye göre primer (bağırsak hastalığına bağlı gelişen) ve sekonder (cerrahi müdahale sonrası gelişen) olarak isimlendirilirler.

¹ Op. Dr., Sağlık Bilimleri Üniversitesi Haseki Eğitim ve Araştırma Hastanesi, Genel Cerrahi Kliniği,
orcunalpay90@gmail.com



varlığında veya malignite şüphesi yüksek olduğunda cerrahi tedavi önerilir. Cerrahi tedavi bir aşamalı veya iki aşamalı prosedür olarak uygulanmalıdır. Tek aşamalı cerrahi tedavi, tek bir ameliyatta enterolitotomi, kolesistektomi ve fistül onarımının birarada yapılmasını ifade eder. İki aşamalı cerrahi tedavi, enterolitotomi ve kolesistektominin iki ayrı operasyonda yapılması anlamına gelmektedir. 2 aşamalı cerrahi tedavide, inflamatuar sürecin gerilemesi için tıkanıklığa sebebiyet veren taşın çıkarılmasından birkaç hafta sonra rezeksiyon yapılması amaçlanır (57). Birden fazla komorbiditesi olan ve genel durumu kötü olan hastalarda iki aşamalı cerrahi tedavi yönteminin mortaliteyi önemli ölçüde azalttığı gösterilmiştir (58).

Komplike olmayan gastrobiliyer fistüller tedavi edilmeden bırakılabilir. Genellikle bu fistüller kendiliğinden iyileşebilir; ancak ülser hastalığı için PPI ve anti-asitlerle medikal tedavi endikedir (59,60). Komplike gastrobiliyer fistüller endoskopik veya cerrahi olarak tedavi edilmelidir. Komplike olması durumunda fistülün standart tedavisi kolesistektomi ve fistül açıklığının onarımıdır. Ortak safra kanalı eksplorasyonu, T-tüp yerleştirme, koledokoduodenostomi, tüp duodenostomi, enterolitotomi ve hepatikojejunostomi de gerekli durumlarda kullanılabilir.

KAYNAKLAR

1. Tassiopoulos, A.K., G. Baum, and J.D. Halverson, *Small bowel fistulas*. Surgical Clinics of North America, 1996. **76**(5): p. 1175-1181.
2. Nikolopoulou, V.N., et al., *Acute upper gastrointestinal bleeding in operated stomach: outcome of 105 cases*. World Journal of Gastroenterology: WJG, 2005. **11**(29): p. 4570.
3. Walan, A., et al., *Effect of omeprazole and ranitidine on ulcer healing and relapse rates in patients with benign gastric ulcer*. New England Journal of Medicine, 1989. **320**(2): p. 69-75.
4. Einhorn, R.I., N.D. Grace, and P.A. Banks, *The clinical significance and natural history of the double pylorus*. Digestive diseases and sciences, 1984. **29**(3): p. 213-218.
5. Hu, T.-H., et al., *Double pylorus: report of a longitudinal follow-up in two refractory cases with underlying diseases*. American Journal of Gastroenterology (Springer Nature), 1995. **90**(5).
6. Yong, E., et al., *Acquired double pylorus*. Singapore medical journal, 2018. **59**(6): p. 335.
7. Umar, S. and M. Bilal, *Double pylorus: two sides to one story*. Clinical Case Reports, 2016. **4**(12): p. 1211.
8. Deshmukh, F., et al., *Gastroduodenal fistula: A rare finding with an atypical presentation*. Gastroenterology Research, 2020. **13**(3): p. 121.
9. Moran Jr, W. and L. Maclean, *Gastroduodenal fistula—a complication of gastric ulcer*. Annals of Surgery, 1957. **146**(6): p. 937.
10. Fousekis, F., et al., *Double pylorus: report of a case with endoscopic follow-up and review of the literature*. Gastroenterology Research, 2018. **11**(2): p. 154.

11. Atiq, O. and G.A. Abrams, *Case study in gastroenterology & hepatology: an uncommon complication of peptic ulcer disease*. Gastroenterology & Hepatology, 2014. **10**(5): p. 333.
12. Ferreira De Souza, T., et al., *Double pylorus in the era of proton pump inhibitors*. Revista de Gastroenterología del Perú: Organo Oficial de la Sociedad de Gastroenterología del Perú, 2014. **34**(2): p. 139-140.
13. Fattah, M.R., K. Homayoon, and L. Hamidpour, *Double pylorus in a cirrhotic patient: a case report and review of the literature*. Middle East Journal of Digestive Diseases, 2012. **4**(2): p. 130.
14. Yamamoto, T., A. Spinelli, and P.G. Kotze. *Challenges in Crohn's disease: Crohn's disease involving the duodenum*. in *Seminars in Colon and Rectal Surgery*. 2020. Elsevier.
15. Yamamoto, T., et al., *Gastroduodenal fistulas in Crohn's disease*. Diseases of the colon & rectum, 1998. **41**(10): p. 1287-1292.
16. Shoji, S., T. Soeno, and T. Takahashi, *Case of Spontaneous Gastrojejunal Fistula Due to Gastric Cancer*. American Journal of Gastroenterology (Springer Nature), 1981. **75**(3).
17. Alkhamisy, A., *Gastrojejunal fistula caused by magnet beads ingestion in a 2-year-old boy*. Journal of Pediatric Surgery Case Reports, 2021. **67**: p. 101809.
18. Akazawa, Y., et al., *A case of double pylorus caused by recurrent gastric ulcers: a long-term endoscopic observation*. Digestive diseases and sciences, 2005. **50**(11): p. 2125-2128.
19. Jeon, B.J., et al., *Unusual case of acquired gastrocorporeo-duodenal fistula with long luminal tract treated without surgical operation*. Journal of Gastroenterology and Hepatology Research, 2013. **2**(7): p. 703-705.
20. Thompson, W.M., et al., *Unusual manifestations of peptic ulcer disease*. Radiographics, 1981. **1**(1): p. 1-16.
21. Ćulafić, Đ.M., et al., *Spontaneous gastrojejunal fistula is a complication of gastric ulcer*. World Journal of Gastroenterology: WJG, 2007. **13**(3): p. 483.
22. Lei, J.-J., et al., *Acquired double pylorus: Clinical and endoscopic characteristics and four-year follow-up observations*. World Journal of Gastroenterology, 2016. **22**(6): p. 2153.
23. Gong, J., et al., *Outcome of surgery for coloduodenal fistula in Crohn's disease*. Journal of Gastrointestinal Surgery, 2016. **20**(5): p. 976-984.
24. DeShazo, C.V., et al., *Mucosal pedicle graft of jejunum for large gastroduodenal defects*. The American Journal of Surgery, 1972. **124**(5): p. 671-672.
25. Phifer, T., J. Gladney, and J. McDonald, *Gastrojejunal fistula: a complication of peptic ulcer disease*. Southern Medical Journal, 1986. **79**(8): p. 1015-1017.
26. Matsuoka, M., et al., *Gastrojejunal fistula caused by gastric ulcer*. Journal of gastroenterology, 1998. **33**(2): p. 267-271.
27. Larsen, C., *Gallstone ileus and fistula*. Surgical radiology. Saunders, Philadelphia, pp 968-985, 1981.
28. Safaie-Shirazi, S., *Spontaneous enterobiliary fistulas*. Surg Gynecol Obstet., 1973. **137**: p. 769-772.
29. Abeygunasekera, S., et al., *Gastropancreaticocolic fistula: complication of a benign ulcer*. Gastrointestinal endoscopy, 2004. **59**(3): p. 450-452.
30. Yüceyar, S., et al., *Spontaneous cholecystocutaneous fistula presenting with an abscess containing multiple gallstones: a case report*. The Mount Sinai Journal of Medicine, New York, 2005. **72**(6): p. 402-404.
31. Glenn, F., C. Reed, and W. Grawe, *Biliary enteric fistula*. Surgery, gynecology & obstetrics, 1981. **153**(4): p. 527-531.



32. Yamashita, H., et al., *The internal biliary fistula—reappraisal of incidence, type, diagnosis and management of 33 consecutive cases*. HPB Surgery, 1997. **10**(3): p. 143-147.
33. Pavlidis, T.E., et al., *Management of gallstone ileus*. Journal of hepato-biliary-pancreatic surgery, 2003. **10**(4): p. 299-302.
34. Williams, G.D. and M. Hara, *Spontaneous choledochogastric fistula. Report of the first successful surgical repair*. The American Journal of Surgery, 1966. **112**(1): p. 102-105.
35. Henderson, R., N. Telfer, and J. Halls, *Gastrobiliary fistula: pre-and postoperative assessment with^{sup} 99m/Tc-PIPIDA*. Am. J. Roentgenol.;(United States), 1981. **137**(1).
36. Ohtsubo, K., et al., *Mucin-producing biliary papillomatosis associated with gastrobiliary fistula*. Journal of gastroenterology, 1999. **34**(1): p. 141-144.
37. Chwiesko, A., et al., *A rare spontaneous gastrobiliary fistula*. Euroasian Journal of Hepato-Gastroenterology, 2014. **4**(2): p. 101.
38. H ng, M. and H. Yim, *Spontaneous choledochoduodenal fistula secondary to long-standing ulcer disease*. Singapore medical journal, 2003. **44**(4): p. 205-207.
39. Pickhardt, P.J., S. Bhalla, and D.M. Balfe, *Acquired gastrointestinal fistulas: classification, etiologies, and imaging evaluation*. Radiology, 2002. **224**(1): p. 9-23.
40. Zhang, W. and R. Zheng, *A Rare Case of Spontaneous Gastrobiliary Fistula Diagnosed by Oral Contrast-enhanced Ultrasound*. ADVANCED ULTRASOUND IN DIAGNOSIS AND THERAPY, 2019. **3**(3): p. 128-131.
41. Mavroeidis, V.K., et al., *Bouveret syndrome—the rarest variant of gallstone ileus: a case report and literature review*. Case Reports in Surgery, 2013. **2013**.
42. Abou-Saif, A. and F.H. Al-Kawas, *Complications of gallstone disease: Mirizzi syndrome, cholecystocholedochal fistula, and gallstone ileus*. The American journal of gastroenterology, 2002. **97**(2): p. 249-254.
43. Qasaimeh, G.R., S. Bakkar, and K. Jadallah, *Bouveret's syndrome: an overlooked diagnosis. A case report and review of literature*. International surgery, 2014. **99**(6): p. 819-823.
44. Patel, A. and S. Agarwal, *The yellow brick road of Bouveret syndrome*. Clinical Gastroenterology and Hepatology, 2014. **12**(8): p. A24.
45. Bouveret, L., *Sténose du pylore, adherent à la vesicule calculeuse*. Rev Med, 1896. **16**: p. 1-16.
46. Mou, X., L. Tian, and Y. Zhou, X LL. Current status of diagnosis and treatment of Bouveret syndrome. Zhongguo Xiandai Putong Waike Jinzhuan, 2013. **16**: p. 484-485.
47. Langhorst, J., et al., *Successful endoscopic therapy of a gastric outlet obstruction due to a gallstone with intracorporeal laser lithotripsy: a case of Bouveret's syndrome*. Gastrointestinal endoscopy, 2000. **51**(2): p. 209-213.
48. Cappell, M.S. and M. Davis, *Characterization of Bouveret's syndrome: a comprehensive review of 128 cases*. Official journal of the American College of Gastroenterology| ACG, 2006. **101**(9): p. 2139-2146.
49. Doycheva, I., et al., *Bouveret's syndrome: case report and review of the literature*. Gastroenterology Research and Practice, 2009. **2009**.
50. Haddad, F.G., W. Mansour, and L. Deeb, *Bouveret's syndrome: literature review*. Cureus, 2018. **10**(3).
51. Lassandro, F., et al., *Gallstone ileus analysis of radiological findings in 27 patients*. European journal of radiology, 2004. **50**(1): p. 23-29.
52. Yahya, A.-H., et al., *Uncommon presentation of a common disease-Bouveret's syndrome: A case report and systematic literature review*. World Journal of Gastrointestinal Surgery, 2017. **9**(1): p. 25.

53. Hanandeh, A., S. Allamaneni, and A. Shikhman, *Surgical duodenotomy following untreated Bouveret syndrome*. Cureus, 2019. **11**(6).
54. Caldwell, K.M., et al., *Bouveret syndrome: current management strategies*. Clinical and experimental gastroenterology, 2018. **11**: p. 69.
55. Doogue, M., C. Choong, and F. Frizelle, *Recurrent gallstone ileus: underestimated*. The Australian and New Zealand journal of surgery, 1998. **68**(11): p. 755-756.
56. Reisner, R.M. and J.R. Cohen, *Gallstone ileus: a review of 1001 reported cases*. The American surgeon, 1994. **60**(6): p. 441-446.
57. Jafferbhoy, S., Q. Rustum, and M. Shiwani, *Bouveret's syndrome: should we remove the gall bladder?* Case Reports, 2011. **2011**: p. bcr0220113891.
58. Blumgart, L.H. and J. Belghiti, *Surgery of the liver, biliary tract, and pancreas*. Vol. 1. 2007: Saunders Elsevier Philadelphia.
59. Aitken, R., Bornman, PC and D. Dent, *Choledochopancreatoduodenal fistula caused by duodenal ulceration-a case report*. South African Medical Journal, 1986. **69**(11): p. 707-708.
60. Parekh, D., I. Segal, and R. Ramalho, *Choledochoduodenal fistula from a penetrating duodenal ulcer. A case report*. South African Medical Journal= Suid-afrikaanse Tydskrif vir Geneeskunde, 1992. **81**(9): p. 478-479.