

Nadir Görülen İnce Barsak Obstrüksiyon Sebebi: İleum Kaynaklı Nöroendokrin Tümör

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GİRİŞ

Karın ağrısı sebebi ile acil servis başvurularının % 2-4'ünü İnce Barsak Obstrüksiyonları (İBO) oluşturur. Bu durum Amerika Birleşik Devletleri'nde cerrahi servislerine yatışın yıllık % 16'sını ve 300.000'den fazla operasyonu oluşturmaktadır(1). Abdominal cerrahi sonrası oluşan yapışıklıklar ince barsak obstrüksiyonun en sık etiyolojisi olmasına rağmen etyolojide farklı nedenler de vardır. Postoperatif adhezyonlar tüm İBO vakalarının % 75-80'ini oluşturur(2). Günümüzde Batı toplumunda İBO için en yaygın etiyolojiler adhezyonlar, herni, malignite, ve Crohn hastalığıdır(3). Yabancı cisim, radyasyon, endometriozis ve enfeksiyon diğer nadir nedenlerdir.

İnce bağırsak tıkanıklıklarının yönetimi için stratejiler yıllar içinde önemli ölçüde değişmiştir. Ameliyatsız tıbbi tedavi, birçok ince bağırsak tıkanıklığının tedavisinin temelini oluşturmuştur. Bununla birlikte, cerrahinin belirtildiği durumlar

vardır. Bu durumlar bağırsak iskemisini ve bağırsak nekrozunu önlemek için morbidite ve mortalitenin artmasına engel olacak şekilde erken ve hızlı bir şekilde tanımlanmalıdır(4). Tıkanıklığın sınıflandırılması tedavi yönetiminde önemlidir, öykü ve fizik muayene, görüntüleme, dekompresyon ve resüsitasyon yanıtı ve semptomların düzelmesi veya ilerlemesi, ince bağırsak tıkanıklıklarının yönetimini etkileyen anahtar faktörlerdir.

Mevcut literatür ve ince bağırsak tıkanıklıkları hakkındaki geçmiş bilgileri kullanarak, klinisyen ameliyat müdahalesine ihtiyaç olduğunu gösteren belirti ve bulguları dikkatle belirlemelidir. Yaşlı hastalar özellikle obstrüksiyon ve komplikasyonları açısından yüksek risk altındadır. Genel İBO mortalite oranı <% 3 iken, İnce Barsak Obstrüksiyonlu yaşlı hastalarda mortalite oranları% 7-14'tür(5). Yaşlı hastalarda maligniteler nadiren olsa obstrüksiyonun sebebi olabilir.

Primer ince bağırsak maligniteleri, tüm gastrointestinal malignitelerin% 5'inden daha azını temsil eder ve primer ince bağırsak malign neoplazmalarına bağlı ince bağırsak tıkanıklığı, genellikle ileri evrelerde ortaya çıkan nadir bir durumdur. İnce bağırsağın primer malignitesi nispeten na-

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akılda tutulmalı, cerrahi müdahale sırasında lenf nodlarının eksizyonunda ihmal edilmemelidir.

KAYNAKLAR

- Hayanga AJ, Bass-Wilkins K, Bulkley GB. Current management of small-bowel obstruction. *Adv Surg* 2005;39:1–33.
- Ellis H. The clinical significance of adhesions: focus on intestinal obstruction. *Eur J Surg* 1997;163(suppl 577):5.
- Foster NM, McGory ML, Zingmond DS, Ko CY. Small bowel obstruction: a population-based appraisal. *J Am Coll Surg*. 2006;203:170–176.
- Trevino C, Small bowel obstruction: the art of management. *AACN Adv Crit Care*. 2010 Apr Jun;21(2):187-94. doi: 10.1097/NCI.0b013e3181d99247. PMID: 20431447
- Sikirica V, Bapat B, Candrilli SD, et al. The inpatient burden of abdominal and gynecological adhesiolysis in the US. *BMC Surg* 2011;11:13.
- Silva AC, Pimenta M, Guimaraes LS. Small bowel obstruction: what to look for. *Radiographics* 2009; 29(2):423–39.
- Rindi G, Bordi C. Classification of neuroendocrine tumours. In: Caplin M, Kvols L, eds. *Handbook of neuroendocrine tumors*. Bristol, UK: BioScientifica, 2006:37–43.
- Bilimoria KY, Bentrem DJ, Wayne JD, et al. Small bowel cancer in the United States: changes in epidemiology, treatment, and survival over the last 20 years. *Ann Surg* 2009;249(1):63.
- Farley HA and Pommier RF: Surgical treatment of small bowel neuroendocrine tumors. *Hematol Oncol Clin North Am* 30(1): 49-61, 2016.
- Hayden GE, Sprouse KL. Bowel obstruction and hernia. *Emerg Med Clin North Am* 2011;29:319–45.
- Maung AA, Johnson DC, Piper GL, et al. Evaluation and management of small-bowel obstruction: an Eastern Association for the Surgery of Trauma practice management guideline. *J Trauma Acute Care Surg* 2012;73(suppl 4):S362–9.
- Bizer LS, Leibling RW, Delany HM, et al. Small-bowel obstruction: the role of nonoperative treatment in simple intestinal obstruction and predictive criteria for strangulation obstruction. *Surgery* 1981;89:407–13.
- Welch JP. General consideration and mortality in bowel obstruction. In: Welch JP, ed. *Bowel obstruction: differential diagnosis and clinical management*. Philadelphia: Saunders; 1990:59–95.
- Cox MR, Gunn IF, Eastman MC, Hunt RF, Heinz AW. The operative aetiology and types of adhesions causing small bowel obstruction. *Aust N Z J Surg*. 1993;63:848–882.
- Beck DE, Opelka FG, Bailey HR, Rauh SM, Pashos CL. Incidence of small bowel obstruction and adhesiolysis after open colorectal and general surgery. *Dis Colon Rectum*. 1999;42:241–248.
- Lucky A, Livingston E, Tache Y. Mechanisms and treatment of postoperative ileus. *Arch Surg*. 2003;138:206.
- Kendrick MK. Partial small bowel obstruction: clinical issues and recent technical advances. *Abdom Imaging*. 2009;34:329–334.
- Dayton MT, Dempsey DT, Larson GM, Posner AR. New paradigms in the treatment of small bowel obstruction. *Curr Probl Surg* 2012; 49:642–717.
- Long B, Robertson J, Koyfman A.J, *Emerg Med*. 2019 Feb;56(2):166-176. doi: 10.1016/j.jemermed.2018.10.024. Epub 2018 Dec 6. PMID: 30527563
- Miller G, Boman J, Shrier I, et al. Etiology of small bowel obstruction. *Am J Surg* 2000;180(1):33–6.
- Scott FI, Osterman MT, Mahmoud NN, et al. Secular trends in small-bowel obstruction and adhesiolysis in the United States: 1988-2007. *Am J Surg* 2012; 204(3):315–20.
- Angenete E, Jacobsson A, Gellerstedt M, et al. Effect of laparoscopy on the risk of small-bowel obstruction: a population-based register study. *Arch Surg* 2012;147(4):359–65.
- Zielinski MD, Bannon MP. Current management of small bowel obstruction. *Adv Surg* 2011;45:1–29.
- Hara AK, Swartz PG. CT enterography of Crohn's disease. *Abdom Imaging* 2009;34(3):289–95.
- Wiesner W, Khurana B, Ji H, Ros PR. Ct of acute bowel ischemia. *Radiology* 2003;226:635–650.
- Siegel RL, Miller KD, Jemal A. Cancer statistics 2018. *CA Cancer J Clin* 2018; 68(1):7–30.
- Huang BY, Warshaw DM. Adult intussusception: diagnosis and clinical relevance. *Radiol Clin North Am* 2003;41(6):1137–51.
- Anlauf M, Sipos B (2014), Neuroendocrine neoplasms of the distal jejunum and ileum. *Pathologe* 35:283–293(quiz 294)
- Schnirer II, Yao JC, Ajani JA. Carcinoid: a comprehensive review. *Acta Oncologica* 2003;42:672–92.
- Lodish MB, Stratakis CA. Endocrine tumours in neurofibromatosis type 1, tuberous sclerosis and related syndromes. *Best Pract Res Clin Endocrinol Metab*. 2010;24:439–49.
- Xavier S, Rosa B, Cotter J. Small bowel neuroendocrine tumors: from pathophysiology to clinical approach. *World J Gastrointest Pathophysiol* 2016;7(1):117–24.
- Shamir A, Gabriel M. Laparoscopic resection of gastrointestinal neuroendocrine tumors with special contribution of radionuclide imaging. *World J Gastroenterol* 2014;20:15608–15.
- Berge T and Linell F: Carcinoid tumours. Frequency in a defined population during a 12-year period. *Acta Pathol Microbiol Scand A* 84(4): 322-330, 1976.
- McGory ML, Maggard MA, et al. Malignancies of the appendix: beyond case series reports. *Dis Colon Rectum* 2005;48:2264–71.
- Hau O, Gustafsson BI, Kidd M, et al. Neuroendocrine tumour epidemiology: contrasting Norway and North America. *Cancer* 2008;113:2655–64.
- Niederle B, Pape UF Vienna Consensus Conference participants (2016) ENETS Consensus Guidelines Update for Neuroendocrine Neoplasms of the Jejunum and Ileum. *Neuroendocrinology* 103:125–138
- Modlin IM, Lye KD, Kidd M. A 5-decade analysis of 13,715 carcinoid tumours. *Cancer* 2003;97:934–59.
- Zuetsenhorst JM, Taal BG. Metastatic carcinoid tumours: a clinical review. *Oncologist* 2005;10:123–31.
- Imam H, Eriksson B, Lukinius A, et al. Induction of apoptosis in neuroendocrine tumours of the digestive system during treatment with somatostatin analogs. *Acta Oncol* 1997;36:607–14
- Pasieka JL. Carcinoid tumours *Surg Clin North Am* 2009;89:1123–37.
- Alonso O, Rodríguez-Taroco M, Savio E, et al. (68)Ga-DOTA-TATE PET/CT in the evaluation of patients with neuroendocrine metastatic carcinoma of unknown origin. *Ann Nucl Med* 2014;28(7):638–45.
- Ethun CG, Postlewait LM, (2016) Small bowel neuroendocrine tumors: a critical analysis of diagnostic work-up and operative approach. *JSurgOncol* 114:671–676
- F Weber 'H Dralle. *Chirurg*. 2018 Jun;89(6):428-433. doi: 10.1007/s00104-018-0607-4. Surgical aspects of neuroendocrine tumors of the small intestine
- Watzka FM, Fottner C, Miederer M, Weber MM, Schad A, Lang H, Musholt TJ (2016) Surgical treatment of NEN of small bowel: a retrospective analysis. *World J Surg* 40:749–758
- Landry CS, Lin HY, (2013) Resection of risk mesenteric lymph nodes is associated with improved survival in patients with small bowel neuroendocrine tumors. *World JSurg* 37:1695–1700
- Shebani KO, Souba WW, Finkelstein DM, et al. Prognosis and survival in patients with gastrointestinal tract carcinoid tumors. *Ann Surg* 1999;229:815–21.
- Neugut AI, Marvin MR, Rella VA, et al. An overview of adenocarcinoma of the small intestine. *Oncology (Williston Park)* 1997;11(4):529–36.

48. Schottenfeld D, Beebe-Dimmer JL, Vignneau FD. The epidemiology and pathogenesis of neoplasia in the small intestine. *Ann Epidemiol* 2009;19(1):58–69.
49. Matsushita M, Hajiro K, Kajiyama T, et al. Malignant lymphoma in the ileocecal region causing intussusception. *J Gastroenterol* 1994;29(2):203–7.
50. Avile's A, Nambo MJ, Neri N, et al. The role of surgery in primary gastric lymphoma. Results of a controlled clinical trial. *Ann Surg* 2004;240(1):44–50.
51. Miettinen M, Lasota J. Gastrointestinal stromal tumors: pathology and prognosis at different sites. *Semin Diagn Pathol* 2006;23:70–83.
52. Grover S, Ashley SW, Raut CP. Small intestine gastrointestinal stromal tumors. *Curr Opin Gastroenterol* 2012;28(2):113–23.
53. Pfau P, Ginsberg G. Foreign bodies and bezoars. In: Feldman M, Friedman LS, Sleisenger MH, eds. *Sleisenger and Fordtran's gastrointestinal and liver diseases: pathophysiology/diagnosis/management*. 7th ed. Philadelphia: Saunders, 2002: 395–397.
54. Kement M, Ozlem N, Colak E, Kesmer S, Gezen C, Vural S. Synergistic effect of multiple predisposing risk factors on the development of bezoars. *World J Gastroenterol* 2012;18:960–964.
55. Quiroga S, Alvarez-Castells A, Sebastià MC, Pallisa E, Barluenga E. Small bowel obstruction secondary to bezoar: CT diagnosis. *Abdom Imaging* 1997;22:315–317.
56. Sarhan M, Shyamali B, Fakulujo A, Ahmed L. Jejunal bezoar causing obstruction after laparoscopic roux-en-Y gastric bypass. *JSLS* 2010;14:592–595.
57. Taylor MR, Lalani N. Adult small bowel obstruction. *Acad Emerg Med* 2013;20:528–44.
58. Helton WS, Fisichella PM. Intestinal obstruction. In: Souba WW, Fink MP, Jurkovich GJ, et al, eds. *ACS Surgery: Principles and Practice*. New York, NY: WebMD Inc; 2005:350–369.
59. Sarr M, Bulkley G, Zuidema G. Preoperative recognition of intestinal strangulation obstruction: prospective evaluation of diagnostic capability. *Am J Surg*. 1983; 145:176.
60. Azagury D, Liu RC, Morgan A, SpainDA. Small bowel obstruction: a practical step-by-step evidence-based approach to evaluation, decision making, and management. *J Trauma Acute Care Surg* 2015; 79:661–8.
61. Maglinte DDT, Heitkamp DE, Howard TJ, Kelvin FM, Lappas JC. Current concepts in imaging of small bowel obstruction. *Radiol Clin North Am*. 2003;41:263–283.
62. Atri M, McGregor C, McInnes M, et al. Multidetector helical CT in the evaluation of acute small bowel obstruction: comparison of nonenhanced and IV enhanced CT. *Eur J Radiol* 2009;71:135–40.
63. Khasawneh MA, Ugarte ML, Srivastian B, et al. Role of gastrografin challenge in early postoperative small bowel obstruction. *J Gastrointest Surg* 2014;18:363–8.
64. Barnett RE, Younga J, Harris B, et al. Accuracy of computed tomography in small bowel obstruction. *Am Surg* 2013;79:641–3.
65. O'Leary EA, Desale SY, Yi WS, et al. Letting the sun set on small bowel obstruction: can a simple risk score tell us when nonoperative care is inappropriate? *Am Surg* 2014;80:572–9.