

SAFRA KESESİ VE SAFRA YOLU
İNFEKSİYÖZ HASTALIKLARIEkin Arel YEŞİLOĞLU¹ - Yaren DİRİK²

DOI: 10.37609/akya.3785.c434

AKUT KOLESİSTİT

Akut kolesistit; safra kesesinin ani iltihaplanması sonucu oluşan bir hastalıktır. Büyük oranda %90-95 safra kesesi taşlarının komplikasyonu sonucunda oluşsa da, %5-10 akalkülöz kolesistit de görülür (1). Sağ üst kadranda ağrısı, ateş ve lökositoz temel belirtileridir. Acil servise karın ağrısı nedeniyle başvuran hastalar içerisinde akut kolesistit sıklığı %3-10 aralığında bildirilmiştir (2,3).

Akut Taşlı Kolesistit

Akut taşlı kolesistit safra taşlarının en yaygın komplikasyonudur. Sistematik bir derlemede asemptomatik safra kesesi taşı olan hastalarda akut taşlı kolesistit riskinin %1-2, hafif semptomatik olan hastalarda %1-3 görülmüştür (4).

Patogenez

Akut kolesistit, safra taşının genellikle sistik kanalı obstrüksiyonundan kaynaklansa da bu durum sadece obstrüksiyonla açıklanamaz, safra kesesi mukozasının zarar görmesi ve inflamatuvar mediatörlerin salınımı patogenezde önemli rol oynar. Bir hayvan deneyinde sistik kanal ligasyonu sonucunda sistik kanal içeriğinin yavaşça emilerek inflamasyona yol açmadığı görülmüş, inflamasyon

olması için kese lümeninde iritan maddeye bağlı bir travma gerekliliği ortaya konmuştur (5). Travma sonrası ortaya çıkan fosfolipaz A'nın; lesitini normalde safra kesesinde bulunmayan lizolesitine dönüştürmesi ve lizolesitin prostaglandin E ve F1α artışına yol açarak kolesistite yol açtığı savunulmuştur (6). Akut kolesistitli hastalara diklofenak, ibuprofen ve indometazin gibi prostaglandin inhibitörleri uygulanmasının hem safra kesesi luminal basıncını azalttığı hem de ağrıyı kestiği ve akut kolesistit gelişmesini önlediğiyle ilgili çalışmalar bulunmaktadır (7,8). Akut kolesistitli hastaların yarısına yakınında safra kesesi sıvısında enterik bakteriler gösterilmiş olsa da kolesistit başlangıcına sebep olmadığı düşünülmektedir (9).

Akut kolesistitte safra kesesinin histopatolojik olarak hafif ödemden ve akut inflamasyon bulguları görülebildiği gibi nekroz veya gangren de görülebilir. Akut kolesistit uzun süre tedavi edilmez ve sistik kanal tıkalı kalırsa; safra kesesi lümeninde beyaz mukoid bir sıvı birikerek hidrops denilen mukus dolu şişkin safra kesesine yol açabilir (10).

Klinik Bulgular

Her 4 akut kolesistit hastasının 3 tanesi daha önceden biliyer ağrı çektiğini belirtmektedir (11).

¹ Uzm. Dr., Akdeniz Üniversitesi Tıp Fakültesi, İç Hastalıkları AD., Gastroenteroloji BD., Gastroenteroloji Yandal Asistanı, ekinyesiloglu@gmail.com, ORCID iD: 0000-0002-8725-8842

² Uzm. Dr., Siirt Eğitim ve Araştırma Hastanesi, Gastroenteroloji Kliniği, yaren.dirik@gmail.com, ORCID iD: 0000-0003-4582-8672

veya stent yerleştirilmesi gibi terapötik müdahaleler yapılabilir. Ancak endoskopik drenaja göre daha invaziv bir yöntemdir ve safra yollarında dilatasyon yoksa yapılamaz.

Cerrahi drenaj, ancak diğer drenaj yöntemleri yapılamadığında veya başarısız olduğunda yapılmalıdır.

KAYNAKLAR

- Kimura Y, Takada T, Kawarada Y, et al. Definitions, pathophysiology, and epidemiology of acute cholangitis and cholecystitis Tokyo Guidelines.
- Brewer RJ, Golden GT, Hitch DC, et al. Abdominal pain. An analysis of 1,000 consecutive cases in a University Hospital emergency room. *Am J Surg* 131, 219–223 (1976).
- Eskelinen M, Ikonen J, Lipponen P. Diagnostic approaches in acute cholecystitis; a prospective study of 1333 patients with acute abdominal pain. *Theor Surg* 8, 15–20 (1993).
- Friedman, G. D. Natural history of asymptomatic and symptomatic gallstones. *Am J Surg* 165, 399–404 (1993).
- Roslyn JJ, DenBesten L, Thompson JE, et al. Roles of lithogenic bile and cystic duct occlusion in the pathogenesis of acute cholecystitis. *Am J Surg* 140, 126–130 (1980).
- Kaminski DL, Desphande Y, Thomas L, et al. Effect of oral ibuprofen on formation of prostaglandins E and F by human gallbladder muscle and mucosa. *Dig Dis Sci* 30, 933–940 (1985).
- Goldman G, Kahn PJ, Alon R, et al. Biliary colic treatment and acute cholecystitis prevention by prostaglandin inhibitor. *Dig Dis Sci* 34, 809–811 (1989).
- Akriviadis EA, Hatzigavriel M, Kapnias D, et al. Treatment of biliary colic with diclofenac: a randomized, double-blind, placebo-controlled study. *Gastroenterology* 113, 225–231 (1997).
- Claesson BEB, Holmlund DEW, Matzsch TW. Microflora of the gallbladder related to duration of acute cholecystitis. *Surg Gynecol Obstet* 162, 531–535 (1986).
- Edulung Y, Zettergren L. Histopathology of the gallbladder in gallstone disease related to clinical data; with a proposal for uniform surgical and clinical terminology. *Acta Chir Scand* 450–60 (1959).
- Raine PAM, Gunn AA. Acute cholecystitis. *Br J Surg* 62, 697–700 (1975).
- Singer AJ, McCracken G, Henry MC, et al. Correlation among clinical, laboratory, and hepatobiliary scanning findings in patients with suspected acute cholecystitis. *Ann Emerg Med* 28, 267–272 (1996).
- Dumont AE. Significance of hyperbilirubinemia in acute cholecystitis. *Surgery, Gynecology&Obstetrics* 855–857.
- Kurzweil SM, Shapiro MJ, Andrus CH, et al. Hyperbilirubinemia without common bile duct abnormalities and hyperamylasemia without pancreatitis in patients with gallbladder disease. *Arch Surg* 129, 829–833 (1994).
- Shea JA, Berlin JA, Escarce JJ, et al. Revised estimates of diagnostic test sensitivity and specificity in suspected biliary tract disease. *Archives of internal medicine* 2573–2581 (1994).
- Miura F, Okamoto K, Takada T, et al. Tokyo Guidelines 2018: initial management of acute biliary infection and flowchart for acute cholangitis. *J Hepatobiliary Pancreat Sci* 25, 31–40 (2018).
- Mazeh, H. et al. Role of antibiotic therapy in mild acute calculus cholecystitis: a prospective randomized controlled trial. *World J Surg* 36, 1750–1759 (2012).
- Kanafani ZA, Khalife N, Kanj SS, et al. Antibiotic use in acute cholecystitis: practice patterns in the absence of evidence-based guidelines. *J Infect* 51, 128–134 (2005).
- Barie PS, Fischer E. Acute acalculous cholecystitis. *Journal of the American College of Surgeons* 232–245 (1995).
- Kalliafas S, Ziegler DW, Flancbaum L, et al. Acute acalculous cholecystitis: incidence, risk factors, diagnosis, and outcome. *The american surgeon* 471–475 (1998).
- Mcchesney JA, Northup PG, Bickston SJ. Acute acalculous cholecystitis associated with systemic sepsis and visceral arterial hypoperfusion: a case series and review of pathophysiology. *Dig Dis Sci* 48, 1960–1967 (2003).
- Shapiro MJ, Luchtefeld WB, Kurzweil S, et al. Acute acalculous cholecystitis in the critically ill. *The American Surgeon* 335–339 (1994).
- Wibolt KS, Jeffrey RB Jr. Acalculous cholecystitis in patients undergoing bone marrow transplantation. *The European Journal of Surgery* 519–524 (1997).
- Nash JA, Cohen SA. Gallbladder and biliary tract disease in AIDS. *Gastroenterol Clin North Am* 26, 323–335 (1997).
- Hakala T, Nuutinen PJ, Ruokonen ET, et al. Microangiopathy in acute acalculous cholecystitis. *The British Journal of Surgery* 1249–1252 (1997).
- Kaminski DL, Feinstein WK, Yashwant G, et al. The production of experimental cholecystitis by endotoxin. *Prostaglandins* 47, 233–245 (1994).
- Becker CG, Dubin T, Glenn F. Induction of acute cholecystitis by activation of factor XII. *J Exp Med* 151, 81–90 (1980).
- Claesson BE. Microflora of the biliary tree and liver--clinical correlates. *Dig Dis* 4, 93–118 (1986).
- Cornwell EE, Rodriguez A, Mirvis SE, et al. Acute acalculous cholecystitis in critically injured patients. Preoperative diagnostic imaging. *Ann Surg* 210, 52–55 (1989).
- Savoca PE, Longo WE, Zucker KA, et al. The increasing prevalence of acalculous cholecystitis in outpatients. Results of a 7-year study. *Ann Surg* 211, 433–437 (1990).
- Gallaher JR, Charles A. Acute Cholecystitis: A Review. *JAMA* 327, 965–975 (2022).
- Boland GW, Lee MJ, Leung J, et al. Percutaneous cholecystostomy in critically ill patients: early response and final outcome in 82 patients. *AJR Am J Roentgenol* 163, 339–342 (1994).
- Mirvis SE, Vainright JR, Nelson AW, et al. The diagnosis of acute acalculous cholecystitis: a comparison of sonography, scintigraphy, and CT. *AJR Am J Roentgenol* 147, 1171–1175 (1986).
- Laing FC, Federle MP, Jeffrey RB, et al. Ultrasonic evaluation of patients with acute right upper quadrant pain. *Radiology* 140, 449–455 (1981).
- Boland GW, Slater G, Lu DS, et al. Prevalence and significance of gallbladder abnormalities seen on sonography in intensive care unit patients. *AJR Am J Roentgenol* 174, 973–977 (2000).
- Myrianthefs P, Evodia E, Vlachou I, et al. Is routine ultra-

- sound examination of the gallbladder justified in critical care patients? *Crit Care Res Pract* 2012, (2012).
37. Mirvis SE, Whitley NO, Miller JW. CT diagnosis of acalculous cholecystitis. *J Comput Assist Tomogr* 11, 83–87 (1987).
 38. Blankenberg F, Wirth R, Jeffrey RB, et al. Computed tomography as an adjunct to ultrasound in the diagnosis of acute acalculous cholecystitis. *Gastrointest Radiol* 16, 149–153 (1991).
 39. Mariat G, Mahul P, Prév t N, et al. Contribution of ultrasonography and cholescintigraphy to the diagnosis of acute acalculous cholecystitis in intensive care unit patients. *Intensive Care Med* 26, 1658–1663 (2000).
 40. Chung YH, Choi ER, Kim KM, et al. Can percutaneous cholecystostomy be a definitive management for acute acalculous cholecystitis? *J Clin Gastroenterol* 46, 216–219 (2012).
 41. Laurila J, Syrjälä H, Laurila PA, et al. Acute acalculous cholecystitis in critically ill patients. *Acta Anaesthesiol Scand* 48, 986–991 (2004).
 42. Akhan O, Akinci D, Özmen MN. Percutaneous cholecystostomy. *Eur J Radiol* 43, 229–236 (2002).
 43. Shirai Y, Tsukada K, Kawaguchi H, et al. Percutaneous transhepatic cholecystostomy for acute acalculous cholecystitis. *Br J Surg* 80, 1440–1442 (1993).
 44. Baron TH, Grimm IS, Swanson LL. Interventional Approaches to Gallbladder Disease. *N Engl J Med* 373, 357–365 (2015).
 45. Brugge WR, Friedman LS. A new endoscopic procedure provides insight into an old disease: acute acalculous cholecystitis. *Gastroenterology* 106, 1718–1720 (1994).
 46. Chung YH, Choi ER, Kim KM, et al. Can percutaneous cholecystostomy be a definitive management for acute acalculous cholecystitis? *J Clin Gastroenterol* 46, 216–219 (2012).
 47. McLoughlin RF, Patterson EJ, Mathieson JR, et al. Radiologically guided percutaneous cholecystostomy for acute cholecystitis: long-term outcome in 50 patients. *Canadian Association of Radiologists Journal* 455–459 (1994).
 48. Anderson JE, Chang DC, Talamini MA. A nationwide examination of outcomes of percutaneous cholecystostomy compared with cholecystectomy for acute cholecystitis, 1998–2010. *Surg Endosc* 27, 3406–3411 (2013).
 49. Önder A, Kapan M, Ülger BV, et al. Gangrenous cholecystitis: mortality and risk factors. *Int Surg* 100, 254–260 (2015).
 50. Fry DE, Cox RA, Harbrecht PJ. Gangrene of the gallbladder: a complication of acute cholecystitis. *Southern medical journal* 666–668 (1981).
 51. Habib FA, Kolachalam RB, Khilnani R, et al. Role of laparoscopic cholecystectomy in the management of gangrenous cholecystitis. *Am J Surg* 181, 71–75 (2001).
 52. Quiroga-Garza A, Alvarez-Villalobos NA, Angeles-Mar HJ, et al. Localized gallbladder perforation: a systematic review of treatment and prognosis. *HPB (Oxford)* 23, 1639–1646 (2021).
 53. Roslyn JJ, Thompson JE Jr, Darvin H, et al. Risk factors for gallbladder perforation. *The American journal of gastroenterology* 636–640 (1987).
 54. Derici H, Kara C, Bozdog AD, et al. Diagnosis and treatment of gallbladder perforation. *World J Gastroenterol* 12, 7832–7836 (2006).
 55. Lassandro F, Gagliardi N, Scuderi M, et al. Gallstone ileus analysis of radiological findings in 27 patients. *Eur J Radiol* 50, 23–29 (2004).
 56. Gencosmanoglu R, Inceoglu R, Baysal C, et al. Bouveret's syndrome complicated by a distal gallstone ileus. *World J Gastroenterol* 9, 2873–2875 (2003).
 57. Ibrarullah M, Mishra T, Das AP. Mirizzi syndrome. *Indian J Surg* 70, 281–287 (2008).
 58. Kimura Y, Takada T, Kawarada Y, et al. Definitions, pathophysiology, and epidemiology of acute cholangitis and cholecystitis: Tokyo Guidelines. *J Hepatobiliary Pancreat Surg* 14, 15–26 (2007).
 59. Sulzer JK, Ocun LM. Cholangitis: Causes, Diagnosis, and Management. *Surg Clin North Am* 99, 175–184 (2019).
 60. Lipsett PA, Pitt HA. Acute Cholangitis. *Surgical Clinics of North America* 70, 1297–1312 (1990).
 61. Csendes A, Becerra M, Burdiles P, et al. Bacteriological studies of bile from the gallbladder in patients with carcinoma of the gallbladder, cholelithiasis, common bile duct stones and no gallstones disease. *The European Journal of Surgery* 363–367 (1994).
 62. Sung JY, Costerton JW, Shaffer EA. Defense system in the biliary tract against bacterial infection. *Dig Dis Sci* 37, 689–696 (1992).
 63. Kimura Y, Takada T, Kawarada Y, et al. Definitions, pathophysiology, and epidemiology of acute cholangitis and cholecystitis: Tokyo Guidelines. *J Hepatobiliary Pancreat Surg* 14, 15–26 (2007).
 64. Van den Hazel SJ, Speelman P, Tytgat GNJ, et al. Role of antibiotics in the treatment and prevention of acute and recurrent cholangitis. *Clin Infect Dis* 19, 279–286 (1994).
 65. Saik RP, Greenburg AG, Farris JM, et al. Spectrum of cholangitis. *Am J Surg* 130, 143–150 (1975).
 66. Mosler, P. Diagnosis and management of acute cholangitis. *Curr Gastroenterol Rep* 13, 166–172 (2011).
 67. Yusoff IF, Barkun JS, Barkun AN. Diagnosis and management of cholecystitis and cholangitis. *Gastroenterol Clin North Am* 32, 1145–1168 (2003).
 68. Miura F, Takada T, Strasberg SM, et al. TG13 flowchart for the management of acute cholangitis and cholecystitis. *J Hepatobiliary Pancreat Sci* 20, 47–54 (2013).
 69. Leese T, Neoptolemos JP, Baker AR, et al. Management of acute cholangitis and the impact of endoscopic sphincterotomy. *Br J Surg* 73, 988–992 (1986).
 70. Lai EC, Mok FP, Tan ES, et al. Endoscopic biliary drainage for severe acute cholangitis. *N Engl J Med* 326, 70 (1992).