

# AKUT MEKANİK İNTESTİNAL OBSTRÜKSİYON NEDENİ OLARAK ENDOMETRİOZİN İNCELENMESİ

**Serkan AKBULUT<sup>18</sup>**

Endometriozis, endometriyal dokunun uterin kavite dışında varlığı ile karakterize kronik jinekolojik bir hastalıktır. Üreme çağındaki kadınların %10-15'ini etkiler (1). Ancak varlığının doğrulanması için görüntülenme gerekliliği gibi tanısal güçlükler nedeniyle gerçek prevalansı daha yüksek olabilir (2). Genellikle pelvis içerisinde izlenmekle birlikte diğer organlarda da gözlenebilmektedir (3). En sık yerleşim yeri olan overleri, Douglas cul-de-sac ve uterosakral ligamanlar izler (4). Atipik non-jinekolojik yerleşim bölgeleri arasında gastrointestinal ve üriner sistem, abdominal duvar dokuları, deri, pulmoner sistem, lenfatik sistem, kas-iskelet sistemi ve santral sinir sistemi bildirilmiştir (5). Özellikle atipik yerleşim bölgeleri doğru tanı açısından güçlük yaratmaktadır (6). Bağırsak, en sık etkilenen ekstragenital lokalizasyondur (%3-12), %50-90'ı rektosigmoid bileşke olmak üzere ince bağırsak (%2-16), appendiks (%3-18) ve çekum (%2-5) da etkilenebilir (7). Farklı yerleşim bölgelerindeki farklı insidans oranlarının nedeni endometriozisin sıklıkla cerrahi sırasında insidental olarak saptanması olabilir (8). Bağırsak yerleşimli oglular sıklık pelvik ağrı ve dismenore gibi klasik semptomlara ek olarak defekasyon, oturma ve özellikle menstruasyon sırasında şiddetlenen perineye yayılan rektal ağrı, konstipasyon, diyare, menstruasyona eşlik eden rektal kanama ve suboklüzyon semptomları ile prezente olurlar (9, 10). Bunlar, özellikle önceden bilinen endometriozis öyküsü olmayan hastalarda (5, 11) Crohn hastalığı, appendisit, tuboovaryan abse, intestinal obstrüksiyon ya da malignite gibi diğer patolojilerde izlenen semptomlarla benzer olabilir (5). Başlangıçta sıklık seyir gösteren semptomlar, lezyonlar progresse oldukça sürekli hale gelebilir.

Endometriozisin kökeni ve patogenezi halen iyi anlaşılamamıştır (12). Bu konuda en sık kabul gören teori ‘Sampson’ın Retrograd Menstruasyon Teorisi’dir. Buna göre menstruasyon sırasında endometriyal doku fallop tüplerinden reflü ile

<sup>18</sup> Doktor Öğretim Görevlisi, Ankara Üniversitesi Tıp Fakültesi Cerrahi Onkoloji B.D., sarkhany@gmail.com

FzioMed, San Luis Obispo, CA), sprey jel, fibrin yapıştırıcı, heparin ve noksitiyolin yer alır. Hakkında bir miktar bilimsel veri olan bazı bariyer ajanları şunlardır; okside rejenere sellüloz (Interceed; Ethicon Gynecare, Somerville, NJ), genişletilmiş politetrafloroetilen (Gore-Tex; Gore Medical, Flagstaff, AZ), hiyalüronik asit / karboksimetilsellüloz (Seprafilm; Sanofi, Bridge-water, NJ), fibrinojen / trombin / aprotin / kollajen / riboflavin (fibrin tabaka) ve polilaktik asit film. Katı bariyerler söz konusu olduğunda 'Interceed' hakkında en tatminkar veri bulunan ajandır (91). Ayrıca 'Gore-Tex' de fayda sağlıyor gibi görünse de absorbe edilmez olması nedeniyle takiben ek bir girişimle çıkarılma gereksinimi kendisine olan ilgiyi sınırlamıştır. Likit bariyer ajanları arasında çapraz bağlı hiyalüronik asit içeren solüsyonlar ve 'Sepracoat' faydalı görülmektedir. 'Intergel' de bu anlamda değerli bulunmuş olsa da ağrı ve alerjik reaksiyonlar gibi yan etkileri nedeniyle 2003 yılında piyasadan çekilmişdir (90).

Mevcut veriler ışığında adezyon formasyonunun sıklığı ve yaygınlığı solid veya likit bariyer ajanlarının kullanımıyla azaltılabilir ancak bunların hiçbiri adezyon oluşumunu tamamen ortadan kaldırılamaz (26). Ancak bununla ilişkili olarak gebelik oranı ya da pelvik ağrıya faydasını değerlendiren herhangi bir çalışma bulunmamaktadır. Mevcut deliller, kontrol laparoskopisinde adezyon varlığına dayanmaktadır (90, 91).

## KAYNAKLAR

1. Olive DL, Pritts EAJNEJM. Treatment of endometriosis. 2001;345(4):266-75.
2. Brown J, Farquhar CJCDoSR. Endometriosis: an overview of Cochrane Reviews. 2014(3).
3. Parasar P, Ozcan P, Terry KLJCo, reports g. Endometriosis: epidemiology, diagnosis and clinical management. 2017;6(1):34-41.
4. Chapron C, Fauconnier A, Vieira M, Barakat H, Dousset B, Pansini V, et al. Anatomical distribution of deeply infiltrating endometriosis: surgical implications and proposition for a classification. 2003;18(1):157-61.
5. Hwang BJ, Jafferjee N, Paniz-Mondolfi A, Baer J, Cooke K, Frager DJEr. Nongynecological endometriosis presenting as an acute abdomen. 2012;19(5):463-71.
6. Baden DN, van de Ven A, Verbeek PCJJomcr. Endometriosis with an acute colon obstruction: a case report. 2015;9(1):150.
7. Teke Z, Aytekin FO, Atalay AO, Demirkhan NCJWjogW. Crohn's disease complicated by multiple stenoses and internal fistulas clinically mimicking small bowel endometriosis. 2008;14(1):146.
8. Lin Y-H, Kuo L-J, Chuang A-Y, Cheng T-I, Hung C-FJJotCMA. Extrapelvic endometriosis complicated with colonic obstruction. 2006;69(1):47-50.
9. Bianchi A, Pulido L, Espín F, Hidalgo L, Heredia A, Fantova M, et al. Intestinal endometriosis. Current status. 2007;81(4):170-6.
10. Nozari N, Shafiei M, Sarmadi SJJor, infertility. An Unusual Presentation of Endometriosis as an Ileocolic Intussusception with Cecal Mass: A Case Report. 2018;19(4):247.
11. Khwaja SA, Zakaria R, Carneiro HA, Khwaja HAJBcr. Endometriosis: a rare cause of small bowel obstruction. 2012;2012:bcr0320125988.

12. Viganò P, Somigliana E, Gentilini D, Benaglia L, Vercellini PJJoE. Back to the original question in endometriosis: implantation or metaplasia? 2009;1(1):1-8.
13. Quinn MJMh. Endometriosis: the consequence of neurological dysfunction? 2004;63(4):602-8.
14. Witz CAJCo, gynecology. Current concepts in the pathogenesis of endometriosis. 1999;42(3):566.
15. Markham S. Extrapelvic endometriosis. Modern Approaches to Endometriosis: Springer; 1991. p. 151-82.
16. Vercellini P, Chapron C, Fedele L, Gattei U, Daguati R, Crosignani PGJBAIJoO, et al. Evidence for asymmetric distribution of lower intestinal tract endometriosis. 2004;111(11):1213-7.
17. Siristatidis CSJMSM. What have theomics done for endometriosis? 2009;15(5):RA116-RA23.
18. Minh H, Smadja A, Orcel LJdg, obstetrique et biologie de la reproduction. An integrated histogenetic concept of internal and external endometriosis. 1986;15(1):29-35.
19. Donnez J, Spada F, Squifflet J, Nisolle MJF, sterility. Bladder endometriosis must be considered as bladder adenomyosis. 2000;74(6):1175-81.
20. Anaf V, El Nakadi I, Simon P, Van De Stadt J, Fayt I, Simonart T, et al. Preferential infiltration of large bowel endometriosis along the nerves of the colon. 2004;19(4):996-1002.
21. Cameron I, Rogers S, Collins M, Reed MJljoed. Intestinal endometriosis: presentation, investigation, and surgical management. 1995;10(2):83-6.
22. Lorente RP, Palacios AP, Bravo FB, López FC, Bouhmidi A, Huertas CN, et al. Rectosigmoid endometriosis with lymph node involvement. 2003;26(1):23-5.
23. Sheikh HA, Krishnamurti U, Bhat Y, Rajendiran SJAAop, medicine l. A 42-year-old woman with a 7-month history of abdominal pain. 2005;129(12):e218-e21.
24. Hsu AL, Khachikyan I, Stratton PJCo, gynecology. Invasive and non-invasive methods for the diagnosis of endometriosis. 2010;53(2):413.
25. Milone M, Mollo A, Musella M, Maietta P, Fernandez LMS, Shatalova O, et al. Role of colonoscopy in the diagnostic work-up of bowel endometriosis. 2015;21(16):4997.
26. Somigliana E, Vigano P, Benaglia L, Busnelli A, Vercellini P, Fedele LJJomig. Adhesion prevention in endometriosis: a neglected critical challenge. 2012;19(4):415-21.
27. Ling CM, Lefebvre GJJS. Extrapelvic endometriosis: a case report and review of the literature. 2000;22(2):97-100.
28. Redwine DBJF, sterility. Ovarian endometriosis: a marker for more extensive pelvic and intestinal disease. 1999;72(2):310-5.
29. Garg NK, Bagul NB, Doughan S, Rowe PHJWjogW. Intestinal endometriosis-A rare cause of colonic perforation. 2009;15(5):612.
30. Beltran MA, Tapia TQ, Araos F, Martínez H, Cruces KSJRmdC. Ileal endometriosis as a cause of intestinal obstruction. Report of two cases. 2006;134(4):485-90.
31. Torralba-Morón A, Urbanowicz M, Ibarrola-De Andres C, Lopez-Alonso G, Colina-Ruizdelgado F, Guerra-Vales J-MJIM. Acute small bowel obstruction and small bowel perforation as a clinical debut of intestinal endometriosis: a report of four cases and review of the literature. 2016;55(18):2595-9.
32. Veeraswamy A, Lewis M, Mann A, Kotikela S, Hajhosseini B, Nezhat CJCo, et al. Exogenous endometriosis. 2010;53(2):449-66.
33. Slesser AA, Sultan S, Kubba F, Sellu DPJWjoes. Acute small bowel obstruction secondary to intestinal endometriosis, an elusive condition: a case report. 2010;5(1):27.
34. Ridha JR, Cassaro SJSt. Acute small bowel obstruction secondary to ileal endometriosis: report of a case. 2003;33(12):944-7.
35. Popoutchi P, Lemos CRdR, Nogueira AA, Feres O, Rocha JJRdJSPMJ. Postmenopausal intestinal obstructive endometriosis: case report and review of the literature. 2008;126(3):190-3.
36. López P, Martín L, Vicente M, Girón OJCe. Ileal endometriosis and Crohn's disease. A difficult differential diagnosis. 2007;82(2):122-4.

37. Itoga T, Matsumoto T, Takeuchi H, Yamasaki S, Sasahara N, Hoshi T, et al. Fibrosis and smooth muscle metaplasia in rectovaginal endometriosis. 2003;53(6):371-5.
38. Nasim H, Sikafi D, Nasr AJIJoscr. Sigmoid endometriosis and a diagnostic dilemma—A case report and literature review. 2011;2(7):181-4.
39. Vahdat M, Sariri E, Mehdizadeh A, Najmi Z, Shayanfar NJSLE, Techniques P. Colonic Obstruction as an Unusual Presentation of Endometrioma: A Case Report. 2013;23(3):e131-e3.
40. Molina GA, Ramos DR, Yu A, Paute PA, Llerena PS, Alexandra Valencia S, et al. Endometriosis Mimicking a Cecum Mass with Complete Bowel Obstruction: An Infrequent Cause of Acute Abdomen. 2019;2019.
41. Miller G, Boman J, Shrier I, Gordon PHJTAJoS. Etiology of small bowel obstruction. 2000;180(1):33-6.
42. Ten Broek RP, Issa Y, van Santbrink EJ, Bouvy ND, Kruitwagen RF, Jeekel J, et al. Burden of adhesions in abdominal and pelvic surgery: systematic review and met-analysis. 2013;347:f5588.
43. Gore RM, Silvers RI, Thakrar KH, Wenzke DR, Mehta UK, Newmark GM, et al. Bowel obstruction. 2015;53(6):1225-40.
44. Frago R, Biondo S, Millan M, Kreisler E, Golda T, Fraccalvieri D, et al. Differences between proximal and distal obstructing colonic cancer after curative surgery. 2011;13(6):e116-e22.
45. Cappell MS, Batke MJMCoNA. Mechanical obstruction of the small bowel and colon. 2008;92(3):575-97.
46. Chen X-L, Ji F, Lin Q, Chen Y-P, Lin J-J, Ye F, et al. A prospective randomized trial of transnasal ileus tube vs nasogastric tube for adhesive small bowel obstruction. 2012;18(16):1968.
47. Gans SL, Stoker J, Boermeester MAJJogm. Plain abdominal radiography in acute abdominal pain; past, present, and future. 2012;5:525.
48. Frager DJGCoNA. Intestinal obstruction role of CT. 2002;31(3):777-99.
49. Chapman A, McNamara M, Porter GJCr. The acute contrast enema in suspected large bowel obstruction: value and technique. 1992;46(4):273-8.
50. Catena F, De Simone B, Coccolini F, Di Saverio S, Sartelli M, Ansaldi LJWJoES. Bowel obstruction: a narrative review for all physicians. 2019;14(1):20.
51. De Ceglie A, Bilardi C, Bianchi S, Picasso M, Di Muzio M, Trimarchi A, et al. Acute small bowel obstruction caused by endometriosis: a case report and review of the literature. 2008;14(21):3430.
52. Decker D, König J, Wardelmann E, Richter O, Popat S, Wolff M, et al. Terminal ileitis with sealed perforation—a rare complication of intestinal endometriosis: case report and short review of the literature. 2004;269(4):294-8.
53. Attar A, Lagorce CJCG, Hepatology. Small bowel obstruction caused by endometriosis. 2007;5(6):A30.
54. Bassi MA, Podgaec S, Dias Júnior JA, Sobrado CW, Abrão MSJRdAMB. Bowel endometriosis: a benign disease? 2009;55(5):611-6.
55. Calcagno P, Viti M, Cornelli A, Galli D, D'Urbano CJIJoscr. Intestinal obstruction caused by endometriosis: Endoscopic stenting and expedited laparoscopic resection avoiding stoma. A case report and review of the literature. 2018;44:75-7.
56. Darvishzadeh A, McEachern W, Lee TK, Bhosale P, Shirkhoda A, Menias C, et al. Deep pelvic endometriosis: a radiologist's guide to key imaging features with clinical and histopathologic review. 2016;41(12):2380-400.
57. Ozel B, Pickhardt PJ, Kim DH, Schumacher C, Bhargava N, Winter TCJDotC, et al. Accuracy of routine nontargeted CT without colonography technique for the detection of large colorectal polyps and cancer. 2010;53(6):911-8.
58. Pramateftakis M, Psomas S, Kanellos D, Vrakas G, Roidos G, Makrantonakis A, et al. Large bowel obstruction due to endometriosis. 2010;14(1):87-9.

59. Wadhwa V, Slattery E, Garud S, Sethi S, Wang H, Poylin VY, et al. Endometriosis mimicking colonic stromal tumor. 2015;4(3):257-9.
60. Ferrero S, Camerini G, Maggiore ULR, Venturini PL, Biscaldi E, Remorgida VJWjogs. Bowel endometriosis: recent insights and unsolved problems. 2011;3(3):31.
61. Dessole S, Farina M, Rubattu G, Cosmi E, Ambrosini G, Nardelli GBjF, et al. Sonovaginography is a new technique for assessing rectovaginal endometriosis. 2003;79(4):1023-7.
62. Saccardi C, Cosmi E, Borghero A, Tregnaghi A, Dessole S, Litta PJUiO, et al. Comparison between transvaginal sonography, saline contrast sonovaginography and magnetic resonance imaging in the diagnosis of posterior deep infiltrating endometriosis. 2012;40(4):464-9.
63. Cosmi E, Saccardi C, Litta PJJouimojtAlOUiM. The sonographic diagnosis of deep endometriosis. 2009;28(3):410-1.
64. Bartkowiak R, Zieniewicz K, Kaminski P, Krawczyk M, Marianowski L, Szymanska KJMSM. Diagnosis and treatment of sigmoidal endometriosis-a case report. 2000;6(4):787-90.
65. Scarmato VJ, Levine MS, Herlinger H, Wickstrom M, Furth EE, Tureck RWJR. Ileal endometriosis: radiographic findings in five cases. 2000;214(2):509-12.
66. Gordon RL, Evers K, Kressel H, Laufer I, Herlinger H, Thompson JJAJoR. Double-contrast enema in pelvic endometriosis. 1982;138(3):549-52.
67. Croom RD, Donovan ML, Schwesinger WHJTAjos. Intestinal endometriosis. 1984;148 (5):660-7.
68. Biscaldi E, Ferrero S, Fulcheri E, Ragni N, Remorgida V, Rollandi GAJEr. Multislice CT enteroclysis in the diagnosis of bowel endometriosis. 2007;17(1):211-9.
69. Bazot M, Darai E, Hourani R, Thomassin I, Cortez A, Uzan S, et al. Deep pelvic endometriosis: MR imaging for diagnosis and prediction of extension of disease. 2004;232(2):379-89.
70. Takeuchi H, Kuwatsuru R, Kitade M, Sakurai A, Kikuchi I, Shimanuki H, et al. A novel technique using magnetic resonance imaging jelly for evaluation of rectovaginal endometriosis. 2005;83(2):442-7.
71. Delpy R, Barthet M, Gasmi M, Berdah S, Shojai R, Desjeux A, et al. Value of endorectal ultrasonography for diagnosing rectovaginal septal endometriosis infiltrating the rectum. 2005;37(04):357-61.
72. Camagna O, Dhainaut C, Dupuis O, Soncini E, Martin B, Palazzo L, et al. Surgical management of rectovaginal septum endometriosis from a continuous series of 50 cases. 2004;32(3):199-209.
73. Paramythiotis D, Stavrou G, Panidis S, Panagiotou D, Chatzopoulos K, Papadopoulos VN, et al. Concurrent appendiceal and umbilical endometriosis: a case report and review of the literature. 2014;8(1):258.
74. Ono H, Honda S, Danjo Y, Nakamura K, Okabe M, Kimura T, et al. Rectal obstruction due to endometriosis: A case report and review of the Japanese literature. 2014;5(11):845-8.
75. Kim K-J, Jung S-S, Yang S-K, Yoon SM, Yang D-H, Ye BD, et al. Colonoscopic findings and histologic diagnostic yield of colorectal endometriosis. 2011;45(6):536-41.
76. Schoretsanitis G, Melissas J, Christodoulakis M, Tsiftsis DJAg-eB. Acute intestinal obstruction caused by endometriosis mimicking sigmoid carcinoma. 1998;61(3):376-8.
77. Nezhat C, Nezhat F, Nezhat CJF, sterility. Endometriosis: ancient disease, ancient treatments. 2012;98(6):S1-S62.
78. Nezhat C, Li A, Falik R, Copeland D, Razavi G, Shakib A, et al. Bowel endometriosis: diagnosis and management. 2018;218(6):549-62.
79. Nezhat C, Nezhat F, Nezhat C. Nezhat's Video-Assisted and Robotic-Assisted Laparoscopy and Hysteroscopy with DVD: Cambridge University Press; 2013.
80. Daraï E, Dubernard G, Coutant C, Frey C, Rouzier R, Ballester MJAOs. Randomized trial of laparoscopically assisted versus open colorectal resection for endometriosis: morbidity, symptoms, quality of life, and fertility. 2010;251(6):1018-23.

81. Riiskjaer M, Greisen S, Glavind-Kristensen M, Kesmodel U, Forman A, Seyer-Hansen MJ-BAIJoO, et al. Pelvic organ function before and after laparoscopic bowel resection for rectosigmoid endometriosis: a prospective, observational study. 2016;123(8):1360-7.
82. Bacalbasa N, Balescu I, Filipescu AJiv. Ileocecal obstruction due to endometriosis-A case report and literature review. 2017;31(5):999-1002.
83. Pisanu A, Deplano D, Angioni S, Ambu R, Uccheddu AJWjogW. Rectal perforation from endometriosis in pregnancy: case report and literature review. 2010;16(5):648.
84. Bouaziz J, Soriano DJMg. Complications of colorectal resection for endometriosis. 2017;69(5):477-87.
85. De Cicco C, Corona R, Schonman R, Mailova K, Ussia A, Koninckx PJBAIJoO, et al. Bowel resection for deep endometriosis: a systematic review. 2011;118(3):285-91.
86. Dávalos MLR, De Cicco C, D'Hoore A, De Decker B, Koninckx PRJjomig. Outcome after rectum or sigmoid resection: a review for gynecologists. 2007;14(1):33-8.
87. Soto E, Catenacci M, Bedient C, Jelovsek JE, Falcone TJJomig. Assessment of long-term bowel symptoms after segmental resection of deeply infiltrating endometriosis: a matched cohort study. 2016;23(5):753-9.
88. Robertson D, Lefebvre G, Leyland N, Wolfman W, Allaire C, Awadalla A, et al. Adhesion prevention in gynaecological surgery. 2010;111(2):193-7.
89. Davey AK, Maher PJJJoMIG. Surgical adhesions: a timely update, a great challenge for the future. 2007;14(1):15-22.
90. Metwally M, Cheong Y, Li TCJCoio, gynecology. A review of techniques for adhesion prevention after gynaecological surgery. 2008;20(4):345-52.
91. Ahmad G, O'Flynn H, Hindocha A, Watson AJCDoSR. Barrier agents for adhesion prevention after gynaecological surgery. 2015(4).