Bölüm 41

ÜRİNER ENDOMETRİOZİS TANI VE YÖNETİM

Doç. Dr. İlhan GEÇİT

Üriner endometriozis klinik pratiğimizde çok karşılaşmadığımız ancak klinik bulgu verdiği zaman hasta ve yönetimini yapan hekim açısından birçok problemi bünyesinde taşıyan bir tablodur. Tanı ve tedavisi peritoneal ve ovaryan endometrozis olgularına göre farklılık arz eden bu hastalık multidisipliner yaklaşım ile yönetilmeli ve günlük yaşam standartlarını olumsuz etkilemesine izin verilmemelidir. Bölümün Ürolog bir klinisyen tarafından kaleme alınması konuyla ilgili mevcut bilgi ve deneyimlerimizi artıracak ve farklı bir bakış açısı kazanmamızı sağlayacaktır. **Editorial**

Giriş

Fonksiyonel endometriyum dokusunun uterus dışında bir yerde bulunması endometriozis olarak tanımlanmaktadır. Endometriozis kadın üreme organlarının sık karşılaşılan bir hastalığı olup, kadınlarda kronik pelvik ağrıya neden olmaktadır. Aslında endometriozis histopatolojik olarak benign bir hastalık olmasına karşın, klinik seyir açısından agresif karakterli bir patolojidir. Hastalığın etyolosine yönelik birçok teori öne sürülmesine karşın hala kesin olarak bir neden ortaya koyulamamıştır. Endometriyal implantlar sıklıkla pelvik bölgede overler ve uterosakral ligamanlara yerleşse de, vücudun hemen her yerindeki organları tutabileceği de bilinmektedir. Endometriozis etyolosinde ırk ya da sosyoekonomik durumun önemi olmamasına karşın, ailesel geçişin önemli yeri olduğu bilinmektedir. Eğer kişinin annesi veya kız kardeşinde endometriozis öyküsü mevcut ise, o kişide endometriozis görülme ihtimali 5-6 kat artmaktadır. Endometriozis genellikle 20- 35 yaş arası üreme çağındaki genç kadınların hastalığı olup, 15 yaş öncesi ve menapoz sonrası dönemde normalde görülmez. Çünkü endometrial implantların oluşumu ve varlığını devam ettirebilmesi için fonksiyonel overlerin varlığı ve östrojen gereklidir. Buna karşın menapoz sonrası rapor edilen nadir vakalarda endometriozise neden olan ve bu patolojik dokunun yerleştiği alanda devamını sağlayan iki önemli faktör karşımıza çıkmaktadır. Bunlardan birincisi menapoz sonrası dönemde yapılan östrojen replasman tedavisi, ikincisi ise özellikle obez hastalardaki yüksek endojen östrojen varlığıdır. Erkeklerde de histopatolojik olarak rapor edilmiş endometriozis olguları mevcut olup bunların tamamı prostat lokalizasyonludur ve prostat kanseri nedeniyle yüksek doz östrojen tedavisi alan hastalardan oluşmaktadır. Sık karşılaşılan bir hastalık olmasına rağmen hastaların büyük çoğunluğunun asemptomatik olması nedeniyle genel popülasyondaki prevalansı hala kesin olarak bilinmemektedir. Ancak eldeki veriler doğultusunda endometriozis prevalansının genel kadın popülasyonunda %10-20 arasında olduğu, bu oranın 20-45 yaş arası çocuk sahibi olma potansiyeline sahip üreme çağı kadınlarında %3-10 ve infertil kadınlar için ise %15-25 civarında olduğu bilinmektedir. Özellikle 20'li yaşların ortaları hastalığın pik yapma zamanı olup, üreme sistemine yönelik geçirilmiş cerrahiler, menstrüel sikluslarda

bu olguların 1/3'nde yaptığı üreter obstrüksiyonu nedeniyle sesiz-kalıcı böbrek hasarına neden olabilmesi nedeniyle erken tanı ve tedavi gerektiren bir hastalıktır. Tedavi hedefleri arasında böbrek fonksiyonlarının korunması birinci derece öneme sahiptir. Bunun yanında hastalığın ilerlemesinin durdurulması, hastanın yaşı ve takip eden zamandaki çocuk sahibi olma beklentisine göre fertilite durumunun devam ettirilmesi ve semptomların ortadan kaldırılması diğer öncelikli hedefleri oluşturmaktadır. Genellikle hastaların çoğunluğunun asemptomatik olması ve buna bağlı olarak hastalığın ileri evrelerinde (fibrotik süreç-darlık) tanı almaları nedeniyle üreter endometriozisi kesin tanısı koyulduğunda bir an önce küratif tedavisi yapılması gereken bir durumdur. Medikal tedavinin genellikle etkisi geçici olup belirgin bir küratif tedavi sağlayıcı etkisi olmadığı için, küratif tedavi temel olarak erken dönemde cerrahi tedavi üzerine kurulmaktadır. Üreter endometriozisi cerrahi tedavisinde temel hedefler, lezyonların tamamının eksize edilerek ortadan kaldırılması ve böylece olası nüks riskinin azaltılması, semptomların ortadan kaldırılması, lezyonlar nedeniyle oluşmuş üreteral darlık veya kinkleşme gibi üreter obstrüksiyonu ve buna bağlı böbrek fonksiyon bozukluğuna neden olabilecek patolojik durumların düzeltilmesidir. Ancak burada unutulmaması gereken en önemli nokta, her ne tür tedavi yapılırsa yapılsın öncelikle böbrek fonksiyonlarının durumunun garanti altına alındıktan sonra küratif tedavi uygulamasına geçilmesidir. Üreteral endometriozis olgularının tedavisinde gerekli olduğunda üreteral veya periüreteral lezyonların eksizyonunun gereğinde uygun üreteral rekonstrüksiyon veya re-implantasyon ile kombine edilerek yapılması sıklıkla önerilen cerrahi yaklaşım olmaktadır. Bu uygulamalar da laparoskopik veya açık olarak gerçekleştirilebilmektedir.

Kaynaklar

1. Judd IT. Adenomyoma presenting as a tumor of the bladder. Surg. Clin. North Am. 1921; 1: 1271–8.
2. Abeshouse BS, Abeshouse G. Endometriosis of the urinary tract: a review of the literature and a report of four cases of vesical endomertiosis. J Int Coll Surg 1960;34:43-63.
3. Ball TL, Platt MA. Urologic complications of endometriosis. Am J Obstet Gynecol. 1962;84:1516-1521.
4. Stanley Ke Jr, Utz Dc, Dockerty Mb. Clinically Significant Endometriosis Of The Urinary Tract. Surg Gynecol Obstet 1965; 120:491.
5. Kerr WS. Endometriosis involving the urinary tract. Clin. Obstet. Gynecol. 1966; 9: 331–57.
6. Yates-Bell AJ, Molland MB, Pryor JP. Endometriosis of the ureter. Br J Urol 1972;44:58-67.
7. Fujita K. Endometriosis of the ureter. J Urol. 1976;116:664-666.
8. Stewart WW, Ireland GW. Vesical endometriosis in a postmenopausal woman. J Urol 1977;118:480–481
9. Goebel R, Rjosk HK. Laboratory and clinical studies with the new antigonadotropin, danazol. Acta Endocrinol Suppl. 1977;212:134- 135.
10. Skor AB, Warren MM, Mueller EO. Endometriosis of bladder. Urology 1977;9:689–692
11. Czernobilsky B, Morris WJ. A histologic study of ovarian endometriosis with emphasis on hyperplastic and atypical changes. Obstet Gynecol 1979; 53:318.
12. Moore JG, Hibbard LT, Growdon WA, Schifrin BS. Urinary tract endometriosis: Enigmas in diagnosis and management. Am J Obstet Gynaecol 1979;134:162-72.
13. Cohen MR. Laparoscopic diagnosis and pseudomenopause treatment of endometriosis with danazol. Clin Obstet Gynecol. 1980;23: 901-904.
14. Simpson JL, Elias S, Malinak LR, Buttram VC Jr. Heritable aspects of endometriosis. I. Genetic studies. Am J Obstet Gynecol 1980; 137:327.
15. Bazaz-Malik G, Saraf V, Rana BS. Endometriosis of the kidney. J Urol. 1980;123:422-423.
16. Gardner B, Whitaker RH. The use of danazol for ureteral obstruction caused by endometriosis. J Urol 1981; 125:117.
17. Slutzky JN, Callahan D. Endometriosis of the ureter can present as renal failure: a case report and review of endometriosis affecting the ureter. J. Urol. 1983; 130: 336– 7.
18. Steele RW, Dmowski WP, Marmer DJ. Immunologic aspects of human endometriosis. Am J Reprod Immunol 1984; 6:33.
19. Matsuura K, Kawasaki N, Oka M, et al. Treatment with danazol of ureteral obstruction caused by endometriosis. Acta Obstet Gynecol Scand 1985; 64:339.
20. Rivlin ME, Krueger RP, Wiser WL. Danazol in the management of ureteral obstruction secondary to endometriosis. Fertil Steril 1985; 44:274.
21. Kane C, Drouin P. Obstructive uropathy associated with endometriosis. Am J Obstet Gynecol 1985; 151:207.

22. Jansen RP, Russell P. Nonpigmented endometriosis: clinical, laparoscopic, and pathologic definition. Am J Obstet Gynecol 1986; 155:1154.
23. Jenkins S, Olive DL, Haney AF. Endometriosis: pathogenetic implications of the anatomic distribution. Obstet Gynecol 1986; 67:335.
24. Lucero SP, Wise HA, Kirsh G, Devoe K, Hess ML, Kandawalla N, et al. Ureteric obstruction secondary to endometriosis. Report of three cases with review of literature. Br J Urol 1988;61:201-4.
25. Shook TE, Nyberg LM. Endometriosis of the urinary tract. Urology. 1988;31:1-6.
26. Stovall TG, Ling FW. Splenosis: report of a case and review of the literature. Obstet Gynecol Surv 1988; 43:69.
27. Jepsen JM, Hansen KB. Danazol in the treatment of ureteral endometriosis. J Urol 1988; 139:1045.
28. Oosterlynck DJ, Cornillie FJ, Waer M, et al. Women with endometriosis show a defect in natural killer activity resulting in a decreased cytotoxicity to autologous endometrium. Fertil Steril 1991; 56:45.
29. Togashi K, Nishimura K, Kimura I, et al. Endometrial cysts: Diagnosis with MR imaging. Radiology. 1991;180:73-78.
30. Koninckx PR, Meuleman C, Demeyere S, et al. Suggestive evidence that pelvic endometriosis is a progressive disease, whereas deeply infiltrating endometriosis is associated with pelvic pain. Fertil Steril 1991; 55:759.
31. RM, Eichenhauer R, Large G. Diagnostic and therapy of the endometriosis of the ureter. Act. Urol. 1992; 23: 186–92.
32. Schwartzwald D, Mooppan U, Ohm HK, et al. Endometriosis of bladder. Urology. 1992;39:219-222.200.
33. Vessey MP, Villard-Mackintosh L, Painter R. Epidemiology of endometriosis in women attending family planning clinics. BMJ. 1993;306:182-184.
34. The American Fertility Society. Management of endometriosis in the presence of pelvic pain. Fertil Steril 1993; 60:952.
35. Olive DL, Schwartz LB. Endometriosis. N Engl J Med 1993; 328:1759.
36. Dmowski WP, Gebel HM, Braun DP. The role of cell-mediated immunity in pathogenesis of endometriosis. Acta Obstet Gynecol Scand Suppl 1994; 159:7.
37. Sangi-Haghpeykar H, Poindexter AN 3rd. Epidemiology of endometriosis among parous women. Obstet Gynecol 1995; 85:983.
38. Nannoum AB, Hickman TN, Goodman SB, et al. Incidence of symptom recurrence after hysterectomy for endometriosis. Fertil Steril. 1995;64:898-902.
39. Price DT, Maloney KE, Ibrahim GK, et al. Vesical endometriosis: Report of two cases and review of the literature. Urology. 1996;48: 639-643.
40. Nezhat C, Nezhat F, Nezhat CH, Nasserbakht F, Rosati M, Seidman DS. Urinary tract endometriosis tr eated by laparoscopy. Fertil Steril 1996;66:920-4.
41. Vercellini P, Meschia M, De Giorgio O, et al. Bladder detrusor endometriosis: Clinical and pathogenetic implications. J Urol. 1996;155:770-771.
42. Seidman JD. Prognostic importance of hyperplasia and atypia in endometriosis. Int J Gynecol Pathol 1996; 15:1.
43. Vercellini P, Trespidi L, De Giorgi O, et al. Endometriosis and pelvic pain: relation to disease stage and localization. Fertil Steril 1996; 65:299.
44. Savoca G, Trombetta C, Troiano L, Guaschino S, Raber M, Belgrano E. Ecographic, MRI and CT features in a case of bladder endometriosis. Arch Ital Urol Androl 1996;68:193- 6.
45. Laufer MR, Goitein L, Bush M, et al. Prevalence of endometriosis in adolescent girls with chronic pelvic pain not responding to conventional therapy. J Pediatr Adolesc Gynecol 1997; 10:199.
46. Garcia GJ, Extramiana CJ, Esteban CJ, et al. Vesical endometriosis after caesarian section: diagnistico-tharapeutic aspects. Acta Urol Esp 1997;21:785-8.
47. Yamamoto K, Mitsuhashi Y, Takaike T, et al. Tubal endometriosis diagnosed within one month after menarche: a case report. Tohoku J Exp Med 1997; 181:385.
48. Fedele L, Piazzola E, Raffaelli R, Bianchi S. Bladder endometriosis: deep infiltrating endometriosis or adenomyosis? Fertil Steril 1998; 69:972.
49. Zanetta G, Webb MJ, Segura JW. Ureteral endometriosis diagnosed at ureteroscopy. Obstet Gynecol 1998; 91:857.
50. Porpora MG, Koninckx PR, Piazze J, et al. Correlation between endometriosis and pelvic pain. J Am Assoc Gynecol Laparosc 1999; 6:429.
51. Chapron C, Dubisson JB. Laparoscopic management of bladder endometriosis. Acta Obstet Gynecol Scand 1999;78:887-90.
52. Sanchez Merino JM, Parra Muntaner L, Guillan Maquieira C, Gomez Cisner os SC, Alonso Ortiz J, Garcia Alonso J. Bladder endometriosis. Arch Esp Urol 1999;52:933-5
53. Propst AM, Laufer MR. Endometriosis in adolescents. Incidence, diagnosis and treatment. J Reprod Med 1999; 44:751.
54. Chapron C, Dubisson JB, Fauconnier A, Da-Costa VM. Laparoscopy and bladder endometriosis. Gynecol Obstet Fertil 2000;28:232-7.
55. Dones J, Spada F, Squifflet J, et al. Bladder endometriosis must be considered as bladder adenomyosis. Fertil Steril. 2000;74:1175-1181.
56. Thomas EJ, Campbell IG. Molecular genetic defects in endometriosis. Gynecol Obstet Invest 2000; 50:44.
57. Vercellini P, Pisacreta A, Pesole A, Vincentini S, Stellato G, Crosignan PG. Is ureteral endometriosis an asymmetric disease? BJOG 2000; 4: 559.
58. Donnez J, Spada F, Squifflet J, Nisolle M. Bladder endometriosis must be considered as bladder adenomyosis. Fertil Steril 2000; 74:1175.
59. Vercammen EE, D'Hooghe TM. Endometriosis and recurrent pregnancy loss. Semin Reprod Med 2000; 18:363.

60. Bischoff FZ, Simpson JL. Heritability and molecular genetic studies of endometriosis. Hum Reprod Update 2000; 6:37.
61. Westney OL, Amundsen CL, McGuire EJ. Bladder endometriosis: conservative management. J Urol 2000; 163:1814.
62. Witz CA. Interleukin-6: another piece of the endometriosis-cytokine puzzle. Fertil Steril 2000; 73:212.
63. Gagnon RF, Arsenault D, Pichette V, Tanguay S. Acute renal failure in a young woman with endometriosis. Nephrol Dial Transplant 2001; 16:1499.
64. Erzen M, Rakar S, Klancnik B, et al. Endometriosis-associated ovarian carcinoma (EAOC): an entity distinct from other ovarian carcinomas as suggested by a nested case control study. Gynecol Oncol 2001; 83:100.
65. Bologna RA, Whitmore KE. Genitourinary endometriosis. AUA Update Series. 2001;1:21.
66. Woodward PJ, Sohaey R, Mezzeti TP. Endometriosis: Radiologic– pathologic correlation. Radiographics. 2001;21:193-216.
67. Swiersz LM. Role of endometriosis in cancer and tumor development. Ann NY Acad Sci 2001;955:281–292
68. Olive DL, Pritts EA. Treatment of endometriosis. N Engl J Med. 2001;345:266-275.
69. Campbell IG, Thomas EJ. Endometriosis: candidate genes. Hum Reprod Update 2001; 7:15.
70. Harada T, Iwabe T, Terakawa N. Role of cytokines in endometriosis. Fertil Steril 2001; 76:1.
71. Lebovic DI, Mueller MD, Taylor RN. Immunobiology of endometriosis. Fertil Steril 2001; 75:1.
72. Ahn M, Loughlin KR. Psoas hitch ureteral reimplantation in adults--analysis of a modified technique and timing of repair. Urology 2001; 58:184.
73. Neahat CH, Malik S, Osias J et al. Laparoscopic management of 15 patients infiltrating endometriosis of the bladder and a case of primary intravesical endometrioid adenosarcoma. Fertil Steril 2002;78:872–875.
74. Vercellini P, Frontino G, Pisacreta A, et al. The pathogenesis of bladder detrusor endometriosis. Am J Obstet Gynecol 2002; 187:538.
75. Fauconnier A, Chapron C, Dubuisson JB, et al. Relation between pain symptoms and the anatomic location of deep infiltrating endometriosis. Fertil Steril 2002; 78:719.
76. Sinaii N, Cleary SD, Ballweg ML, et al. High rates of autoimmune and endocrine disorders, fibromyalgia, chronic fatigue syndrome and atopic diseases among women with endometriosis: a survey analysis. Hum Reprod 2002; 17:2715.
77. Nezhat CH, Malik S, Osias J, et al. Laparoscopic management of 15 patients with infiltrating endometriosis of the bladder and a case of primary intravesical endometrioid adenosarcoma. Fertil Steril 2002; 78:872.
78. Van Langendonckt A, Casanas-Roux F, Donnez J. Oxidative stress and peritoneal endometriosis. Fertil Steril 2002; 77:861.
79. Donnez J, Nisolle M, Squifflet J. Ureteral endometriosis: a complication of rectovaginal endometriotic (adenomyotic) nodules. Fertil Steril 2002; 77:32.
80. Seracchioli R, Mannini D, Colombo FM, et al. Cystoscopy-assisted laparoscopic resection of extramucosal bladder endometriosis. J Endourol 2002; 16:663.
81. Comiter CV. Endometriosis of the urinary tract. Urol Clin North Am 2002; 29:625.
82. Francica G, Giardiello C, Angelone G, et al. Abdominal wall endometriomas near cesarean delivery scars: sonographic and color doppler findings in a series of 12 patients. J Ultrasound Med 2003; 22:1041.
83. Yohannes P. Ureteral endometriosis. J Urol 2003; 170:20.
84. Kennedy S. Genetics of endometriosis: a review of the positional cloning approaches. Semin Reprod Med 2003; 21:111.
85. D'Hooghe TM, Debrock S, Hill JA, Meuleman C. Endometriosis and subfertility: is the relationship resolved? Semin Reprod Med 2003; 21:243.
86. Winkel CA. Evaluation and management of women with endometriosis. Obstet Gynecol 2003; 102:397.
87. Bese T, Simsek Y, Bese N, et al. Extensive pelvic endometriosis with malignant change in tamoxifen-treated postmenopausal women. Int J Gynecol Cancer 2003; 13:376.
88. Husby GK, Haugen RS, Moen MH. Diagnostic delay in women with pain and endometriosis. Acta Obstet Gynecol Scand 2003; 82:649.
89. Abbott J, Hawe J, Hunter D, et al. Laparoscopic excision of endometriosis: a randomized, placebo-controlled trial. Fertil Steril 2004; 82:878.
90. Missmer SA, Hankinson SE, Spiegelman D, et al. Incidence of laparoscopically confirmed endometriosis by demographic, anthropometric, and lifestyle factors. Am J Epidemiol 2004; 160:784.
91. Watanabe Y, Ozawa H, Uematsu K, Kawasaki K, Nishi H,Kobashi Y. Hydronephrosis due to internal endometriosis treated by transperitoneal laparoscopic ureterolysis. Int. J. Urol. 2004; 11: 560–2.
92. Vercellini P, Frontino G, Pietropaolo G, et al. Deep endometriosis: definition, pathogenesis, and clinical management. J Am Assoc Gynecol Laparosc 2004; 11:153.
93. Antonelli A, Simeone C, Frego E, et al. Surgical treatment of ureteral obstruction from endometriosis: our experience with thirteen cases. Int Urogynecol J Pelvic Floor Dysfunct 2004; 15:407.
94. Missmer SA, Hankinson SE, Spiegelman D, et al. Reproductive history and endometriosis among premenopausal women. Obstet Gynecol 2004; 104:965.
95. LC, Kao LC. Endometriosis. Lancet 2004; 364: 1789–9.
96. D'Hooghe TM, Kyama C, Debrock S, Meuleman C, Mwenda JM. Future directions in endometriosis research. Ann. N. Y. Acad. Sci. 2004; 1034: 316–25.
97. Kennedy S, Bergqvist A, Chapron C, et al. ESHRE guideline for the diagnosis and treatment of endometriosis. Hum Reprod 2005; 20:2698.
98. Wykes CB, Clark TJ, Khan KS. Accuracy of laparoscopy in the diagnosis of endometriosis: a systematic quantitative review. BJOG 2004; 111:1204.

99. Hediger ML, Hartnett HJ, Louis GM. Association of endometriosis with body size and figure. Fertil Steril 2005; 84:1366.
100. Efstathiou JA, Sampson DA, Levine Z, et al. Nonsteroidal antiinflammatory drugs differentially suppress endometriosis in a murine model. Fertil Steril 2005; 83:171.
101. Chapron C, Barakat H, Fritel X, et al. Presurgical diagnosis of posterior deep infiltrating endometriosis based on a standardized questionnaire. Hum Reprod 2005; 20: 507.
102. Zhao X, Lang J, Leng J, et al. Abdominal wall endometriomas. Int J Gynaecol Obstet 2005; 90:218.
103. Berkley KJ, Rapkin AJ, Papka RE. The pains of endometriosis. Science 2005; 308: 1587–9.
104. Hsieh YY, Chang CC, Tsai FJ, et al. Estrogen receptor alpha dinucleotide repeat and cytochrome P450c17alpha gene polymorphisms are associated with susceptibility to endometriosis. Fertil Steril 2005; 83:567.
105. Fedele L, Bianchi S, Zanconato G, et al. Long-term follow-up after conservative surgery for bladder endometriosis. Fertil Steril 2005; 83:1729.
106. Schneider A, Touloupidis S, Papatsoris AG, et al. Endometriosis of the urinary tract in women of reproductive age. Int J Urol 2006; 13:902.
107. Sener A, Chew BH, Duvdevani M, et al. Combined transurethral and laparoscopic partial cystectomy and robot-assisted bladder repair for the treatment of bladder endometrioma. J Minim Invasive Gynecol 2006; 13:245.
108. Busacca M, Chiaffarino F, Candiani M, et al. Determinants of long-term clinically detected recurrence rates of deep, ovarian, and pelvic endometriosis. Am J Obstet Gynecol 2006; 195:426.
109. Kinkel K, Frei KA, Balleyguier C, Chapron C. Diagnosis of endometriosis with imaging: a review. Eur Radiol 2006; 16:285.
110. Antonelli A, Simeone C, Zani D, et al. Clinical aspects and surgical treatment of urinary tract endometriosis: our experience with 31 cases. Eur Urol 2006; 49:1093.
111. Marinis A, Vassiliou J, Kannas D, et al. Endometriosis mimicking soft tissue tumors: diagnosis and treatment. Eur J Gynaecol Oncol 2006; 27:168.
112. Tumay V, Ozturk E, Ozturk H, et al. Appendiceal endometriosis mimicking acute appendicitis. Acta Chir Belg. 2006;106:712- 713.
113. Chapron C, Chopin N, Borghese B, et al. Deeply infiltrating endometriosis: pathogenetic implications of the anatomical distribution. Hum Reprod 2006; 21:1839.
114. Park YB, Heo GM, Moon HK, et al. Pulmonary endometriosis resected by video-assisted thoracoscopic surgery. Respirology. 2006; 11:221-223.
115. Ghezzi F, Cromi A, Bergamini V, et al. Outcome of laparoscopic ureterolysis for ureteral endometriosis. Fertil Steril 2006; 86:418.
116. Bedaiwy MA, Falcone T, Mascha EJ, Casper RF. Genetic polymorphism in the fibrinolytic system and endometriosis. Obstet Gynecol 2006; 108:162.
117. Pastor-Navarro H, Giménez-Bachs JM, Donate-Moreno MJ, et al. Update on the diagnosis and treatment of bladder endometriosis. Int Urogynecol J Pelvic Floor Dysfunct 2007; 18:949-954.
118. Fremont RD, Rice TW. Splenosis: a review. South Med J 2007; 100:589.
119. Catalina-Fernandez I, Lopez-Presa D, Saenz-Santamaria J. Fine needle aspiration cytology in cutaneous and subcutaneous endometriosis. Acta Cytol. 2007;51:380-384.
120. Victory R, Diamond MP, Johns DA. Villar's nodule: a case report and systematic literature review of endometriosis externa of the umbilicus. J Minim Invasive Gynecol 2007; 14:23.
121. Abrao MS, Gonçalves MO, Dias JA Jr, et al. Comparison between clinical examination, transvaginal sonography and magnetic resonance imaging for the diagnosis of deep endometriosis. Hum Reprod 2007; 22:3092.
122. Eyster KM, Klinkova O, Kennedy V, Hansen KA. Whole genome deoxyribonucleic acid microarray analysis of gene expression in ectopic versus eutopic endometrium. Fertil Steril 2007; 88:1505.
123. Somigliana E, Vercellini P, Gattei U, et al. Bladder endometriosis: getting closer and closer to the unifying metastatic hypothesis. Fertil Steril 2007; 87:1287.
124. Bazot M, Malzy P, Cortez A, et al. Accuracy of transvaginal sonography and rectal endoscopic sonography in the diagnosis of deep infiltrating endometriosis. Ultrasound Obstet Gynecol 2007; 30:994.
125. Frenna V, Santos L, Ohana E, et al. Laparoscopic management of ureteral endometriosis: our experience. J Minim Invasive Gynecol 2007; 14:169.
126. Al-Khawaja M, Tan PH, MacLennan GT, et al. Ureteral endometriosis: clinicopathological and immunohistochemical study of 7 cases. Hum Pathol 2008; 39:954.
127. Bohrer J, Chen CC, Falcone T. Persistent bilateral ureteral obstruction secondary to endometriosis despite treatment with an aromatase inhibitor. Fertil Steril 2008; 90:2004.
128. Sinaii N, Plumb K, Cotton L, et al. Differences in characteristics among 1,000 women with endometriosis based on extent of disease. Fertil Steril 2008; 89:538.
129. Clement PB. The pathology of endometriosis: a survey of the many faces of a common disease emphasizing diagnostic pitfalls and unusual and newly appreciated aspects. Adv Anat Pathol 2007; 14:241.
130. Nerli RB, Reddy M, Koura AC, et al. Cystoscopy-assisted laparoscopic partial cystectomy. J Endourol 2008; 22:83.
131. Ballard KD, Seaman HE, de Vries CS, Wright JT. Can symptomatology help in the diagnosis of endometriosis? Findings from a national case-control study--Part 1. BJOG 2008; 115:1382.
132. Seracchioli R, Mabrouk M, Manuzzi L, et al. Importance of retroperitoneal ureteric evaluation in cases of deep infiltrating endometriosis. J Minim Invasive Gynecol 2008; 15:435.

133. Fedele L, Bianchi S, Montefusco S, et al. A gonadotropin-releasing hormone agonist versus a continuous oral contraceptive pill in the treatment of bladder endometriosis. Fertil Steril 2008; 90:183.
134. Stegmann BJ, Sinaii N, Liu S, et al. Using location, color, size, and depth to characterize and identify endometriosis lesions in a cohort of 133 women. Fertil Steril 2008; 89:1632.
135. Bricou A, Batt RE, Chapron C. Peritoneal fluid flow influences anatomical distribution of endometriotic lesions: why Sampson seems to be right. Eur J Obstet Gynecol Reprod Biol 2008; 138:127.
136. Matalliotakis I, Cakmak H, Dermitzaki D, et al. Increased rate of endometriosis and spontaneous abortion in an in vitro fertilization program: no correlation with epidemiological factors. Gynecol Endocrinol 2008; 24:194.
137. Abrao MS, Dias JA Jr, Bellelis P, et al. Endometriosis of the ureter and bladder are not associated diseases. Fertil Steril 2009; 91:1662.
138. Pérez-Utrilla Pérez M, Aguilera Bazán A, Alonso Dorrego JM, et al. Urinary tract endometriosis: clinical, diagnostic, and therapeutic aspects. Urology 2009; 73:47.
139. Bazot M, Lafont C, Rouzier R, et al. Diagnostic accuracy of physical examination, transvaginal sonography, rectal endoscopic sonography, and magnetic resonance imaging to diagnose deep infiltrating endometriosis. Fertil Steril 2009; 92:1825.
140. Fernando S, Breheny S, Jaques AM, et al. Preterm birth, ovarian endometriomata, and assisted reproduction technologies. Fertil Steril 2009; 91:325.
141. Scioscia M, Molon A, Grosso G, Minelli L. Laparoscopic management of ureteral endometriosis. Curr Opin Obstet Gynecol 2009; 21:325.
142. Berlanda N, Vercellini P, Carmignani L, et al. Ureteral and vesical endometriosis. Two different clinical entities sharing the same pathogenesis. Obstet Gynecol Surv 2009; 64:830.
143. Goncalves MO, Dias JA Jr, Podgaec S, et al. Transvaginal ultrasound for diagnosis of deeply infiltrating endometriosis. Int J Gynaecol Obstet 2009; 104:156.
144. Tran LV, Tokushige N, Berbic M, et al. Macrophages and nerve fibres in peritoneal endometriosis. Hum Reprod 2009; 24:835.
145. Carmignani L, Ronchetti A, Amicarelli F, et al. Bladder psoas hitch in hydronephrosis due to pelvic endometriosis: outcome of urodynamic parameters. Fertil Steril 2009; 92:35.
146. Hudelist G, Oberwinkler KH, Singer CF, et al. Combination of transvaginal sonography and clinical examination for preoperative diagnosis of pelvic endometriosis. Hum Reprod 2009; 24:1018.
147. Bosev D, Nicoll LM, Bhagan L, et al. Laparoscopic management of ureteral endometriosis: the Stanford University hospital experience with 96 consecutive cases. J Urol 2009; 182:2748.
148. Piketty M, Chopin N, Dousset B, et al. Preoperative work-up for patients with deeply infiltrating endometriosis: transvaginal ultrasonografiography must definitely be the first-line imaging examination. Hum Reprod 2009; 24:602.
149. Bulun SE. Endometriosis. N Engl J Med 2009; 360:268.
150. Bordin L, Fiore C, Donà G, et al. Evaluation of erythrocyte band 3 phosphotyrosine level, glutathione content, CA-125, and human epididymal secretory protein E4 as combined parameters in endometriosis. Fertil Steril 2010; 94:1616.
151. Grasso RF, Di Giacomo V, Sedati P, et al. Diagnosis of deep infiltrating endometriosis: accuracy of magnetic resonance imaging and transvaginal 3D ultrasonografiography. Abdom Imaging 2010; 35:716.
152. Chapron C, Bourret A, Chopin N, et al. Surgery for bladder endometriosis: long-term results and concomitant management of associated posterior deep lesions. Hum Reprod 2010; 25: 884.
153. Kovoor E, Nassif J, Miranda-Mendoza I, Wattiez A. Endometriosis of bladder: outcomes after laparoscopic surgery. J Minim Invasive Gynecol 2010; 17:600.
154. Engemise S, Gordon C, Konje JC. Endometriosis. BMJ 2010; 340:2168.
155. Busard MP, Mijatovic V, van Kuijk C, et al. Magnetic resonance imaging in the evaluation of (deep infiltrating) endometriosis: the value of diffusion-weighted imaging. J Magn Reson Imaging 2010; 32:1003.
156. Mereu L, Gagliardi ML, Clarizia R, et al. Laparoscopic management of ureteral endometriosis in case of moderate-severe hydroureteronephrosis. Fertil Steril 2010; 93:46.
157. Carmignani L, Vercellini P, Spinelli M, et al. Pelvic endometriosis and hydroureteronephrosis. Fertil Steril 2010; 93:1741.
158. Lousquy R, Borghese B, Chapron C. [Deep bladder endometriosis: how do I...to perform a laparoscopic partial cystectomy?]. Gynecol Obstet Fertil 2010; 38:697.
159. Holland TK, Yazbek J, Cutner A, et al. Value of transvaginal ultrasound in assessing severity of pelvic endometriosis. Ultrasound Obstet Gynecol 2010; 36:241.
160. Chapron C, Chiodo I, Leconte M, et al. Severe ureteral endometriosis: the intrinsic type is not so rare after complete surgical exeresis of deep endometriotic lesions. Fertil Steril 2010; 93:2115.
161. Treloar SA, Bell TA, Nagle CM, et al. Early menstrual characteristics associated with subsequent diagnosis of endometriosis. Am J Obstet Gynecol 2010; 202:534.e1.