

## Bölüm 14

# ENDOMETRİOZİSE BAĞLI PELVİK VE İNTRAABDOMİNAL SİNİR İNVAZYONU

Erkan ELÇİ<sup>19</sup>

### GİRİŞ

Endometriozis, üreme çağındaki kadınlarda görülen östrojen bağımlı bir enflamatuar hastalıktır ve menopozda inaktif hale gelir (1). Endometriozis üreme çağındaki kadınların %6-10'unda (2), jinekolojik sebeple opere edilen hastaların %1'inde, sterilizasyon uygulanan hastaların %6-40'ünde, infertilite ya da pelvik ağrı nedeniyle laparoskopi yapılan hastaların %20-50 'inde görülmektedir (1,3).

Endometriozis (EM) bulunduğu yere göre dört gruba ayrılmıştır. (4); a). Peritoneal endometriozis, b). Kistik endometriozis (endometrioma), c). Derin infiltran endometriozis (DIE), d). Ekstra-pelvik endometriozis. Bu farklı endometriozis tiplerinin orijininin de farklı olduğu ileri sürülmüştür (3). Ancak endometriozis uterustan orijin alındığı kabul edilir ve sırasıyla en sık over, periton ve gastrointestinal sistemi tutar (5). Endometriozis genital ve ekstragenital olarak Santral Sinir Sistemi ve hatta göz tutulumu gibi pek çok farklı lokasyonda bulunabilmektedir (3). Endometriotik lezyonların abdominal ve pelvik sinir dokularına (sempatik, parasempatik, motor) basısını endometriozis semptomların ve ağrının temelini oluşturur.

### ENDOMETRİOZİS VE DOKU İNVAZYONU

Doku invazyonunda en sık karşılaşılan endometriozis tipi derin infiltratif endometriozis (DIE) olarak kabul edilir. DIE, tanım olarak subperitoneal veya pelvik organ dokularına invazyon derinliği 5mm üzerindeki tutulumu gösteren endometriozis tipini ifade etmektedir. Pelvik endometriozisli kadınların %6' sını oluşturmaktadır (6), en sık semptomu ise ağrıdır (6). Ağrı, Endometrioziste künt,

<sup>19</sup> Kadın Hastalıkları ve Doğum Uzmanı,

S.B.Ü Ümraniye Eğitim ve Araştırma Hastanesi Kadın Doğum Kliniği, dr.erkanelci@gmail.com

## KAYNAKLAR

1. Stratton, P., & Berkley, K. J. (2010). Chronic pelvic pain and endometriosis: translational evidence of the relationship and implications. *Human reproduction update*. 2010;17:3: 327-346.
2. Giudice LC, Kao LC. Endometriosis. *Lancet* 2004;364:1789-1799.
3. SOGC guidelines on endometriosis: Diagnosis and management. *J of Endometriosis* 2010;2:107-134.
4. Donnez J, Nisolle M. Advanced laparoscopic surgery for the removal of rectovaginal septum endometriotic or adenomyotic nodules. *Baillieres Clin Obstet Gynaecol*. 1995;9:769-774.
5. Anaf V, El Nakadi I, Simon P, et al. Preferential infiltration of large bowel endometriosis along the nerves of the colon. *Hum Reprod*. 2004;19:996-1002
6. Yusuf, A., Iwanaga, J., & Marios, L. *The Clinical Anatomy of Endometriosis: A Review*. Cureus. 2018;10:9.
7. Giudice L. Clinical practice. Endometriosis. *N Engl J Med*. 2010;362:2389-2398.
8. Nisolle M, Donnez J. Peritoneal endometriosis, ovarian endometriosis, and adenomyotic nodules of the rectovaginal septum are three different entities. *Fertil Steril*. 1997;68:585-596.
9. Stratton P, Berkley K. Chronic pelvic pain and endometriosis: translational evidence of the relationship and implications. *Hum Reprod Update*. 2011;17:327-346.
10. Avila I, Filogônio ID, Costa LM, Carneiro MM: Anatomical distribution of deep infiltrating endometriosis and its relationship to pelvic pain. *J Gynecol Surg*. 2016;32:99-103. 10.1089/gyn.2015.0092
11. Cirstoiu M, Bodean O, Secara D, Munteanu O, Cirstoiu C: Case study of a rare form of endometriosis. *J Med Life*. 2013;6:68-71.
12. Fauconnier A, Chapron C. Endometriosis and pelvic pain: epidemiological evidence of the relationship and implications. *Hum Reprod Update*. 2005;11:595-606.
13. Vercellini P, Fedele L, Aimi G, Pietropaolo G, Consonni D, Crosignani PG. Association between endometriosis stage, lesion type, patient characteristics and severity of pelvic pain symptoms: a multivariate analysis of overients. *Hum Reprod*. 2007;22:266-271.
14. Roth LM: Endometriosis with perineural involvement . *Am J Clin Pathol*. 1973, 59:807-9. 10.1093/ajcp/59.6.807
15. Anaf, V., Simon, P., El Nakadi et al. Relationship between endometriotic foci and nerves in rectovaginal endometriotic nodules. *Hum. Reprod*. 2000;15: 1744-1750
16. Anaf, V., Simon, P., El Nakadi, et al. Hyperalgesia, nerve infiltration and nerve growth factor expression in deep adenomyotic nodules, peritoneal and ovarian endometriosis. *Hum. Reprod*. 2002;17, 1895-1900
17. Tokushige, N., Markham, R., Russell, P., & Fraser, I. S. (2006). Nerve fibres in peritoneal endometriosis. *Human reproduction*. 2006;21:11;3001-3007.
18. Tokushige, N., Russell, P., Black, K., Barrera, H., Dubinovsky, S., Markham, R., & Fraser, I. S. (2010). Nerve fibers in ovarian endometriomas. *Fertility and sterility*. 2010; 94;5:1944-1947.
19. Laux-Biehlmann, Alexis, Thomas d'Hooghe, and Thomas M. Zollner. "Menstruation pulls the trigger for inflammation and pain in endometriosis." *Trends in pharmacological sciences*. 2015;36.5: 270-276.
20. Fox, S. I. *Fundamentals of human physiology*. McGraw-Hill. 2009;12 : 240-264
21. Johson, B. W. *Pain mechanisms: Anatomy, physiology, and neurochemistry. Practical Management of Pain*. St. Louis: Mosby. 2000; 117-143.
22. Pinar G., Aygun B, Ozkan Z, et al. Investigation of C nerve fibres in the endometrium of patients diagnosed with endometriosis, endometrioma or adenomyosis. *Journal of Endometriosis*, 2012; 4.3: 168-169.
23. Berkley KJ, Dmitrieva N, Curtis KS, Papka RE. Innervation of ectopic endometrium in a rat model of endometriosis. *Proc Natl Acad Sci U S A* . 2004;101:11094-8

24. Possover M, Rhiem K, Chiantera V. The “neurologic hypothesis”: A new concept in the pathogenesis of the endometriosis? *Gynecological Surgery* .2005; 2:107–111.
25. Anaf, V., Chapron, C., El Nakadi, I., De Moor, V., Simonart, T., & Noël, J. C. Pain, mast cells, and nerves in peritoneal, ovarian, and deep infiltrating endometriosis. *Fertility and sterility* .2006;86;5:1336-1343.
26. Asante A, Taylor RN. Endometriosis: The role of neuroangiogenesis. *Annu Rev Physiol* .2011;73:163–182.
27. Carvalho L, Podgaec S, Bellodi-Privato et al. Role of eutopic endometrium in pelvic endometriosis. *J Minim Invasive Gynecol* .2011;18:419–427
28. Burnstock G. Autonomic neurotransmission: 60 years since sir Henry Dale. *Annu Rev Pharmacol Toxicol*, 2009;49:1–30.
29. Sulaiman H, Gabella G, Davis C, et al. Presence and Distribution of Sensory Nerve Fibers in Human Peritoneal Adhesions. *Annals of surgery*. 2001; 234:256–61.
30. Weinberg JB, Haney AF, Xu FJ, Ramakrishnan S. Peritoneal fluid and plasma levels of human macrophage colony-stimulating factor in relation to peritoneal fluid macrophage content. *Blood*. 1991;78:513–6.
31. Taylor RN, Ryan IP, Moore ES, et al. Angiogenesis and macrophage activation in endometriosis. *Ann N Y Acad Sci*. 1997;828:194–207.
32. Vercellini P, Vigano P, Somigliana E et al. Endometriosis: Pathogenesis and treatment. *Nat Rev Endocrinol*.2014;10:261–275.
33. Burney RO, Giudice LC. Pathogenesis and pathophysiology of endometriosis. *Fertil Steril* .2012; 98:511–519.
34. Darwish, Basma, and Horace Roman. Nerve sparing and surgery for deep infiltrating endometriosis: pessimism of the intellect or optimism of the will. In: *Seminars in reproductive medicine*. Thieme Medical Publishers, 2017: 072-080.
35. Lemos N, Possover M. Laparoscopic approach to intrapelvic nerve entrapments. *J Hip Preserv Surg* 2015;2(2):92–98
36. Possover M. Pathophysiologic explanation for bladder retention in patients after laparoscopic surgery for deeply infiltrating recto- vaginal and/or parametric endometriosis. *Fertil Steril* .2014; 101;3:754–758
37. Zupi E, Marconi D, Sbracia M, et al. Add-back therapy in the treatment of endometriosis-associated pain. *Fertil Steril* .2004; 82:1303-8.
38. Siquara De Sousa, Ana C., et al. “Neural involvement in endometriosis: review of anatomic distribution and mechanisms.” *Clinical Anatomy* .2015 ;28.8: 1029-1038.
39. Bourgioti, C., Preza, O., Panourgias, E, et al. MR imaging of endometriosis: spectrum of disease. *Diagnostic and interventional imaging* .2017;98:11: 751-767.