

Bölüm 12

PEYRONİE VE PENİL REKONSTRÜKTİF CERRAHİ

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GİRİŞ

Penisde, korpus kavernosumu çevreleyen tunika albuginea üzerinde kollajen birikimine bağlı olarak gelişen ve sert nodüllerin oluşumu ile seyreden Peyronie hastalığı ilk olarak Fransız cerrah Francois Gigot de la Peyronie tarafından 1743'de tanımlanmıştır(1).

Tunika albuginea üzerinde kollajen birikimi ile oluşan plaklar penil kurvatu-re neden olabilmektedir. Plak oluşumu ile birlikte ereksiyon sırasında penil ağrı ve erektil disfonksiyonda oluşabilir(2). Peyronie hastalığı penil deformite, koital yetmezlik, hastalar ve eşleri için psikolojik stres ile sonuçlanan cinsel açıdan zayıflatıcı bir hastalıktır(3).

EPİDEMİYOLOJİ

Peyronie hastalığının epidemiyolojisi ile ilgili yeterince bilgi bulunmamakla birlikte %04-9 arasında görülmektedir(4-5). Hastaların kültürel ve psikososyal nedenlerden dolayı doktora gelmediği göz önünde tutulursa insidansın daha yüksek olabileceği tahmin edilebilir(1).

Peyronie hastalığının görülme sıklığı yaş ile birlikte değişmektedir . 40 yaş altı nadir görülmektedir. Genellikle 40-70 yaş arasında daha sık görülmektedir(2).

Beyaz ten renkli kişilerde siyah ten renkli kişilere göre daha fazla oranda Peyronie hastalığına rastlanmaktadır(6).

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Anahtar Kelimeler: Peyronie, plak, penil kûrvatür

KAYNAKÇA

1. Rini BI, Wilding G, Hudes G, et al. Phase II study of axitinib in sorafenib refractory metastatic renal cell carcinoma. *J Clin Oncol.* 2009;27:444-448.
3. Langston JP, et al. Peyronie disease: plication or grafting. *Urol Clin North Am*, 2011. 38: 207.
4. Arafa M.,Eid H, Ezz-Eldine K, et al. The prevalence of Peyronie's disease in diabetic patients with erectile dysfunction. *Int J Impot Res*, 2007. 19: 213
5. Sommer F, Schwazer U,Wassmer G, et al. Epidemiology of Peyronie's disease. *Int J Impot Res*, 2002. 14: 379.
6. Rhoden EL, Ridner CE, Fuchs SC, et al. A cross-sectional study for the analysis of clinical, sexual and laboratory conditions associated to Peyronie's disease. *J Sex Med*, 2010. 7: 1529.
7. Devine CJ, Somers KK,Jardon SG, et al. Proposal: trauma as the cause of the Peyronie's lesion. *J Urol*, 1997. 157: 285.
8. Border WA, Noble NA. Transforming growth factor beta in tissue fibrosis. *N Engl J Med.* 1994 Nov 10;331(19):1286-92
9. El-Sakka AI, Hassoba HM, Chui RM, et al. An animal model of Peyrone'slike condition associated with an increase of transforming growth factor beta mRNA and protein expression. *J Urol.* 1997 Dec;158(6):2284-90.
- 10.
- 11.
12. Carrieri MP, Serrain D,Nucci G, et al. A case-control study on risk factors for Peyronie's disease. *J Clin Epidemiol*, 1998. 51: 511.
13. Bjekic MD, Vlajinac HD, Sipetic SB, et al. Risk factors for Peyronie's disease: a case-control study. *BJU Int*, 2006. 97: 570.
14. Kadioglu A, Tefekli A, Oktar T, et al. A retrospective review of 307 men with Peyronie's disease. *J Urol*, 2002. 168: 1075.
15. Ralph DJ, Brooks MJ, Pryor JP . The treatment of Peyronie's disease with tamoxifen *Br J Urol* 1992 **70**: 648–651
16. Mulhall JP, Schiff J, Guhring P, et al. An analysis of the natural history of Peyronie's disease. *J Urol*, 2006. 175: 2115.
17. Pryor JP, Ralph DJ. Clinical presentations of Peyronie's disease. *Int J Impot Res*, 2002. 14: 414.
18. Andrews OH et al. Atypical Peyronie's Disease *BJU Int* 1999 **84**: 537–538
- 19.
20. Gelbard MK, Dorey F, James K. The natural history of Peyronie's disease. *J Urol*, 1990. 144: 1376.
21. Nelson CJ, Diblasco C, Kendirci M, et al. The chronology of depression and distress in men with Peyronie's disease. *J Sex Med*, 2008. 5: 1985.
22. Nelson CJ, Greenfield JM. The chronology of depression and distress in men with Peyronie's disease. *J Sex Med*, 2008. 5: 1985.
23. Kadioglu A, Tefekli A, Cayan S, et al. Color Doppler ultrasound assessment of penile vascular system in men with Peyronie's disease. *Int J Impot Res*, 2000. 12: 263.
24. Hellstrom WJ, Bivalacqua TJ. Peyronie's disease: etiology, medical, and surgical therapy. *J Androl*, 2000. 21: 347.
25. Pryor J, Akkuş E, Alter G, et al. Controlled clinical trial of Vitamin E in Peyronie's disease. *Prog Reprod Biol*, 1983. 9.
26. Shindel AW, Bullock TL, Brandes S, et al. Urologist practice patterns in the management of Peyronie's disease: a nationwide survey. *J Sex Med*, 2008. 5: 954.
27. Griffiths MR, Priestley GC. A comparison of morphoea and lichen sclerosus et atrophicus in vitro: the effects of para-aminobenzoate on skin fibroblasts. *Acta Derm Venereol*, 1992. 72: 15.
28. Gur S, Limin M, Hellstrom WJ. Current status and new developments in Peyronie's disease: medical, minimally invasive and surgical treatment options. *Expert Opin Pharmacother*, 2011. 12: 931.

29. Ralph DJ, Brook MD, Bottazzo GF, et al. The treatment of Peyronie's disease with tamoxifen. *Br J Urol*, 1992. 70: 648.
30. Teloken C, Rhoden EL, Grozziotin TM, et al. Tamoxifen versus placebo in the treatment of Peyronie's disease. *J Urol*, 1999. 162: 2003.
31. Prieto Castro RM, Leva Valleja ME, Regueiro Lopez JC, et al. Combined treatment with vitamin E and colchicine in the early stages of Peyronie's disease. *BJU Int*, 2003. 91: 522.
32. Kadioglu A, Tefekli A, Köksal T, et al. Treatment of Peyronie's disease with oral colchicine: long-term results and predictive parameters of successful outcome. *Int J Impot Res*, 2000. 12: 169.
33. Shindel AW, Lin G, Ning H, et al. Pentoxifylline attenuates transforming growth factor-beta1-stimulated collagen deposition and elastogenesis in human tunica albuginea-derived fibroblasts part 1: impact on extracellular matrix. *J Sex Med*, 2010. 7: 2077.
34. Brant WO, Dean RC, Lue TF. Treatment of Peyronie's disease with oral pentoxifylline. *Nat Clin Pract Urol*, 2006. 3: 111.
35. Biagiotti G, Cavallini G. Acetyl-L-carnitine vs tamoxifen in the oral therapy of Peyronie's disease: a preliminary report. *BJU Int*, 2001. 88: 63.
36. Tranchant C, Braun S, Warter JM. Mechanism of action of glucocorticoids: role of lipocortins. *Rev Neurol (Paris)*, 1989. 145: 813.
37. Desanctis PN, Furey CA. Steroid injection therapy for Peyronie's disease: a 10-year summary and review of 38 cases. *J Urol*, 1967. 97: 114.
38. Winter CC, Khanna R. Peyronie's disease: results with dermo-jet injection of dexamethasone. *J Urol*, 1975. 114: 898.
39. Cipollone G, Nicolai M, Mastroprimiano G, et al. [Betamethasone versus placebo in Peyronie's disease]. *Arch Ital Urol Androl*, 1998. 70: 165.
40. Rehman J, Benet A, Melman A. Use of intralesional verapamil to dissolve Peyronie's disease plaque: a long-term single-blind study. *Urology*, 1998. 51: 620.
41. Levine LA, Goldman KE, Greenfield M. Experience with intraplaque injection of verapamil for Peyronie's disease. *J Urol*, 2002. 168: 621.
42. Jordan GH. The use of intralesional clostridial collagenase injection therapy for Peyronie's disease: a prospective, single-center, non-placebo-controlled study. *J Sex Med*, 2008. 5: 180.
43. Carson CC, Sadeghi-nejad H, Tursi JP, et al. Analysis of the clinical safety of intralesional injection of collagenase *Clostridium histolyticum* (CCH) for adults with Peyronie's disease (PD). *BJU Int*, 2015. 116: 815.
44. Lipshultz LI, Goldstein I, Seftel AD, et al. Clinical efficacy of collagenase *Clostridium histolyticum* in the treatment of Peyronie's disease by subgroup: results from two large, double-blind, randomized, placebocontrolled, phase III studies. *BJU Int*, 2015. 116: 650.
45. Duncan MR, Berman B, Nseyo UO. Regulation of the proliferation and biosynthetic activities of cultured human Peyronie's disease fibroblasts by interferons-alpha, -beta and -gamma. *Scand J Urol Nephrol*, 1991. 25: 89.
46. Hellstrom WJ, Kendirci M, Matern R, et al. Single-blind, multicenter, placebo controlled, parallel study to assess the safety and efficacy of intralesional interferon alpha-2B for minimally invasive treatment for Peyronie's disease. *J Urol*, 2006. 176: 394.
47. Zucchi A, Costantini E, Cai T, et al. Intralesional Injection of Hyaluronic Acid in Patients Affected With Peyronie's Disease: Preliminary Results From a Prospective, Multicenter, Pilot Study. *Sex Med*, 2016. 4: e83.
48. Martin DJ, Batwan K, Parker M, et al. Transdermal application of verapamil gel to the penile shaft fails to infiltrate the tunica albuginea. *J Urol*, 2002. 168: 2483.
49. Di Stasi SM, Giannantoni A, Capelli G, et al. Transdermal electromotive administration of verapamil and dexamethasone for Peyronie's disease. *BJU Int*, 2003. 91: 825.
50. Lingeman JE, McAteer JA, Kempson SA, et al. Bioeffects of extracorporeal shock wave lithotripsy: strategy for research and treatment. *Urol Clin North Am* 1988; 15: 507±14
51. Gelbard MK, Dorey F, James K. The natural history of Peyronie's disease. *J Urol* 1990; 144: 1376±9

52. Hauck EW, Hauptman A, Bschieper T, et al. Questionable efficacy of extracorporeal shock wave therapy for Peyronie's disease: results of a prospective approach. *J Urol*, 2004. 171: 296.
53. Palmieri A, Imbimbo C, Longo N, et al. A first prospective, randomized, double-blind, placebo-controlled clinical trial evaluating extracorporeal shock wave therapy for the treatment of Peyronie's disease. *Eur Urol*, 2009. 56: 363.
54. Bailey AJ, Torlton JF, Van der Stappen J, et al. The continuous elongation technique for severe Dupuytren's disease. A biochemical mechanism. *J Hand Surg Br*, 1994. 19: 522.
55. Martinez-Salamanca JI, Egui A, Mancada I, et al. Acute phase Peyronie's disease management with traction device: a nonrandomized prospective controlled trial with ultrasound correlation. *J Sex Med*, 2014. 11: 506.
56. Ralph D, Gonzalez-cadauid N, Mirone V, et al. The management of Peyronie's disease: evidence-based 2010 guidelines. *J Sex Med*, 2010. 7: 2359.
57. Kendirci M, Hellstrom WJ. Critical analysis of surgery for Peyronie's disease. *Curr Opin Urol*, 2004. 14: 381.
58. Nesbit, R.M. Congenital curvature of the phallus: report of three cases with description of corrective operation. *J Urol*, 1965. 93: 230.
59. Langston, J.P., et al. Peyronie disease: plication or grafting. *Urol Clin North Am*, 2011. 38: 207.
60. Pryor, J.P. Correction of penile curvature and Peyronie's disease: why I prefer the Nesbit technique. *Int J Impot Res*, 1998. 10: 129.
61. Ralph, D.J., et al. The Nesbit operation for Peyronie's disease: 16-year experience. *J Urol*, 1995. 154: 1362.
62. Pryor, J.P., et al. A new approach to the correction of the penile deformity in Peyronie's disease. *J Urol*, 1979. 122: 622.
63. Savoca, G., et al. Long-term results with Nesbit's procedure as treatment of Peyronie's disease. *Int J Impot Res*, 2000. 12: 289.
64. Ebbelohj, J., et al. New operation for "krummerik" (penile curvature). *Urology*, 1985. 26: 76.
65. Yachia, D. Modified corporoplasty for the treatment of penile curvature. *J Urol*, 1990. 143: 80.
66. Gholami, S.S., et al. Correction of penile curvature using the 16-dot plication technique: a review of 132 patients. *J Urol*, 2002. 167: 2066.
67. Dalkin, B.L., et al. Venogenic impotence following dermal graft repair for Peyronie's disease. *J Urol*, 1991. 146: 849.
68. Devine, C.J., Jr., et al. Surgical treatment of Peyronie's disease with a dermal graft. *J Urol*, 1974. 111: 44.
69. Bokarica, P., et al. Surgical treatment of Peyronie's disease based on penile length and degree of curvature. *Int J Impot Res*, 2005. 17: 170.
70. Taylor, F.L., et al. Surgical correction of Peyronie's disease via tunica albuginea plication or partial plaque excision with pericardial graft: long-term follow up. *J Sex Med*, 2008. 5: 2221.
71. Garcia-Gomez, B., et al. Grafts for Peyronie's disease: a comprehensive review. *Andrology*, 2018. 6: 117.
72. Kadioglu, A., et al. Surgical treatment of Peyronie's disease: a critical analysis. *Eur Urol*, 2006. 50: 235.
73. El-Sakka, A.I., et al. Venous patch graft for Peyronie's disease. Part II: outcome analysis. *J Urol*, 1998. 160: 2050.
74. Kadioglu, A., et al. Surgical treatment of Peyronie's disease with incision and venous patch technique. *Int J Impot Res*, 1999. 11: 75.
75. Montorsi, F., et al. Evidence based assessment of long-term results of plaque incision and vein grafting for Peyronie's disease. *J Urol*, 2000. 163: 1704.
76. Das, S. Peyronie's disease: excision and autografting with tunica vaginalis. *J Urol*, 1980. 124: 818.
77. Chun, J.L., et al. A comparison of dermal and cadaveric pericardial grafts in the modified Horton- Devine procedure for Peyronie's disease. *J Urol*, 2001. 166: 185.

78. Taylor, F.L., *et al.* Surgical correction of Peyronie's disease via tunica albuginea plication or partial plaque excision with pericardial graft: long-term follow up. *J Sex Med*, 2008. 5: 2221.
79. Knoll, L.D. Use of porcine small intestinal submucosal graft in the surgical management of Peyronie's disease. *Urology*, 2001. 57: 753.
80. Knoll, L.D. Use of porcine small intestinal submucosal graft in the surgical management of Peyronie's disease. *Urology*, 2001. 57: 753.
81. Cormio, L., *et al.* Surgical treatment of Peyronie's disease by plaque incision and grafting with buccal mucosa. *Eur Urol*, 2009. 55: 1469.
82. Hatzichristodoulou, G., *et al.* Surgical therapy of Peyronie's disease by partial plaque excision and grafting with collagen fleece: feasibility study of a new technique. *Int J Impot Res*, 2013. 25: 183.
83. Chung, E., *et al.* The role of PDE5 inhibitors in penile septal scar remodeling: assessment of clinical and radiological outcomes. *J Sex Med*, 2011. 8: 1472.
84. Mulhall, J., *et al.* A surgical algorithm for men with combined Peyronie's disease and erectile dysfunction: functional and satisfaction outcomes. *J Sex Med*, 2005. 2: 132.
85. Egidio, P.H., *et al.* A single relaxing incision to correct different types of penile curvature: surgical technique based on geometrical principles. *BJU Int*, 2004. 94: 1147.
86. Taylor, F.L., *et al.* Peyronie's Disease. *Urol Clin North Am*, 2007. 34: 517.
87. Carrieri, M.P., *et al.* A case-control study on risk factors for Peyronie's disease. *J Clin Epidemiol*, 1998. 51: 511.
88. Wilson, S.K. Surgical techniques: modeling technique for penile curvature. *J Sex Med*, 2007. 4: 231.
89. Wilson, S.K., *et al.* A new treatment for Peyronie's disease: modeling the penis over an inflatable penile prosthesis. *J Urol*, 1994. 152: 1121.
90. Carson, C.C. Penile prosthesis implantation in the treatment of Peyronie's disease. *Int J Impot Res*, 1998. 10: 125.
91. Montague, D.K., *et al.* AMS 3-piece inflatable penile prosthesis implantation in men with Peyronie's disease: comparison of CX and Ultrex cylinders. *J Urol*, 1996. 156: 1633.
92. Rolle, L., *et al.* A prospective multicentric international study on the surgical outcomes and patients' satisfaction rates of the 'sliding' technique for end-stage Peyronie's disease with severe shortening of the penis and erectile dysfunction. *BJU Int*, 2016. 117: 814.
93. Ralph, D., *et al.* The management of Peyronie's disease: evidence-based 2010 guidelines. *J Sex Med*, 2010. 7: 2359.
94. Baillargeon, J., *et al.* Risk of Myocardial Infarction in Older Men Receiving Testosterone Therapy. *Ann Pharmacother*, 2014. 48: 1138.
95. Kadioglu A, Akman T, Sanli O, *et al.* Surgical treatment of Peyronie's disease: a critical analysis. *Eur Urol* 2006;50:235-48.