

Bölüm 23

EREKTİL İŞLEV BOZUKLUĞUNUN CERRAHİ ve CERRAHİ DIŞI TEDAVİSİ

Abdulkadir ÖZMEZ¹

GİRİŞ

Erektile disfonksiyon(ED), penil sertleşmenin tatmin edici bir ilişkiyi sağlayacak veya sürdürecekt kadar yeterli olmaması durumu olarak tanımlanmaktadır.

Son yıllarda bilimin gelişimine paralel olarak erektil disfonksiyonun etyolojisi, ereksiyon mekanizmaları daha iyi anlaşılmiş olup tanı yöntemlerinin çeşitliliği artmıştır.

ED, kişinin fizyolojik ve psikolojik yaşantısını etkileyerek yaşam kalitesini düşürebilir.

Tüm dünyada ED tedavisinde ilk tedavi seçeneği olarak fosfodiesteraz tip 5 inhibitörleri kabul edilmiştir. Kullanılan diğer tedaviler arasında intrakavernozal ajan enjeksiyonu(papaverin gibi), cerrahi yöntemler(penil protez implantasyonu, penil vasküler cerrahiler. v.b.) bulunmaktadır. Gelişmekte olan tedaviler arasında ise kök hücre çalışmaları ve gen terapileri bulunmaktadır.

1.EPIDEMİYOLOJİ

Çalışmalar dünyada ED'nin yüksek prevalans ve insidansa sahip olduğunu göstermektedir.(1) Toplum tabanlı Massachusetts Erkek Yaşlanma Çalışmasında(MMAS); 40-70 yaş arası erkeklerde ED %52 oranında bulunmuştur. Hafif ED %17,2 sinde, orta ED %25,2 sinde, şiddetli ED %9,6 sında saptanmıştır. Köln'de yaşayan 30-80 yaş arasındaki erkeklerde yapılan bir diğer çalışmada ED prevalansı %19,2 olup, yaşla birlikte bu oranın %2.3'ten %53.4'e yükseldiği bildirilmiştir. MMAS çalışmasında genel ED insidansı %26, bir Hollanda çalışmasında %19,2 olarak belirtilmiştir. Yeni başlayan ED için yapılan bir kesitsel çalışmada tıbbi yardım için başvuran erkeklerin 4 tanesinden 1'i 40 yaşının altında idi ve %25 lik bu dilimin %50 sinde şiddetli ED mevcut idi. Çalışmalardaki farklılıkların metodolojik ve hasta popülasyonundaki farklılıklardan kaynaklandığı düşünülmektedir.(2-4)

ED risk faktörleri arasında; metabolik sendrom diyabetes mellitus, sigara, egzersiz yapmama, obstrüktif uyku apne sendromu, hepatit B ilişkili karaciğer yetmezliği, D vitamini eksikliği bulunmaktadır. Bazı çalışmalarda, kardiyovasküler risk faktörleri için yaşam tarzı değişikliği ve farmakoterapinin ED'li erkeklerde cinsel fonksiyonu iyileştirmede yardımcı olabileceğine dair bazı kanıtlar gösterilmiştir. Ancak, ED'nin önlenmesinde yaşam tarzı değişikliklerinin etkilerini belirlemek için daha çok kontrollü prospektif çalışmalara gerek olduğu unutulmamalıdır.(5-10)

¹ Uzman Doktor Abdulkadir ÖZMEZ, Sağlık Bilimleri Üniversitesi Sultangazi Haseki Eğitim Araştırma Hastanesi, Üroloji Kliniği, kadiruzmez@gmail.com

Tablo 4: Günümüzde kullanılan protezler

2 parçalı şişirilebilir	3 parçalı şişirilebilir
Ambicor™ [AMS]	Titan OTR™ (One Touch Release) [Coloplast]
Semirijid olanlar	Titan OTR NB™ (Narrow base) [Coloplast]
Spectra™ [AMS]	Titan Zero Degree™
Genesis™ [Mentor]	AMS 700 CX™ [Boston Scientific]
Tube™ [Promedon]	AMS 700 LGX™ [Boston Scientific]
ZSI 100™ [Zephyr]	AMS 700 CXR™ [Boston Scientific]
Virilis II™ [Subrini]	ZSI 475™ [Zephyr]

Penis Protezi Komplikasyonları

Penis protezi implantasyonunun iki ana komplikasyonu mekanik başarısızlık ve enfeksiyondur. En sık kullanılan 3 parçalı protezin (AMS 700CX / CXRTM ve Coloplast Titan Zero degree™) birkaç teknik modifikasyonu, beş yıllık takipten sonra %5'in altında mekanik arıza ile sonuçlanmıştır.⁽⁷⁵⁾ Gram pozitif ve Gram negatif bakterilere karşı uygun antibiyotik profilaksisi ile dikkatli cerrahi teknikler düşük riskli hastalarda, yüksek hacimli merkezlerde enfeksiyon oranlarını %2-3'e kadar düşürmüştür. Antibiyotik emdirilmiş bir protez (AMS Inhibizone™) veya hidrofilik kaplı protez (Coloplast Titan™) implante edilerek enfeksiyon oranı %1-2'ye kadar azaltılabilir. Yapılan çalışmalarda, penil protez enfeksiyonu riskinin, iyileşen cihazlar ve cerrahi deneyimin artmasıyla her geçen gün azaldığı bildirilmiştir.⁽⁷⁷⁻⁸⁰⁾

Revizyon ameliyatı geçiren hastalar, immün sistemi normal olmayan hastalar (immünoşüpresyon, diyabetes mellitus, omurilik yaralanması) ve penil fibrozu olan hastalar penil protez için yüksek risk taşıyan gruplardır. Enfeksiyon durumunda protezin çıkarılması ve antibiyotik verilmesi gerekir. Alternatif olarak, enfekte olmuş protezin derhal yeni bir protezle değiştirilmesini içeren bir yıkama protokolünde %80'in üzerinde başarı bildirilmiştir.^(78, 81-83)

Anahtar Kelimeler: Eretil disfonksiyon; Medikal tedavi; Cerrahi tedavi

KAYNAKÇA

1. Kessler A, Sollie S, Challacombe B, Briggs K, Van Hemelrijck M. The global prevalence of erectile dysfunction: a review. BJU Int. 2019.
2. Braun M, Wassmer G, Klotz T, Reifenrath B, Mathers M, Engelmann U. Epidemiology of erectile dysfunction: results of the 'Cologne Male Survey'. Int J Impot Res. 2000;12(6):305-11.
3. Johannes CB, Araujo AB, Feldman HA, Derby CA, Kleinman KP, McKinlay JB. Incidence of erectile dysfunction in men 40 to 69 years old: longitudinal results from the Massachusetts male aging study. J Urol. 2000;163(2):460-3.
4. Capogrosso P, Colicchia M, Ventimiglia E, Castagna G, Clementi MC, Suardi N, et al. One patient out of four with newly diagnosed erectile dysfunction is a young man--worrysome picture from the everyday clinical practice. J Sex Med. 2013;10(7):1833-41.
5. Salonia A, Castagna G, Sacca A, Ferrari M, Capitanio U, Castiglione F, et al. Is erectile dysfunction a reliable proxy of general male health status? The case for the International Index of Erectile Function-Erectile Function domain. J Sex Med. 2012;9(10):2708-15.
6. Besiroglu H, Otunctemur A, Ozbek E. The relationship between metabolic syndrome, its components, and erectile dysfunction: a systematic review and a meta-analysis of observational studies. J Sex Med. 2015;12(6):1309-18.
7. Jackson G, Montorsi P, Adams MA, Anis T, El-Sakka A, Miner M, et al. Cardiovascular aspects of sexual medicine. J Sex Med. 2010;7(4 Pt 2):1608-26.
8. Binmoammar TA, Hassounah S, Alsaad S, Rawaf S, Majeed A. The impact of poor glycaemic control on the prevalence of erectile dysfunction in men with type 2 diabetes mellitus: a systematic review. JRSM Open. 2016;7(3):2054270415622602.
9. Lahoz C, Mostaza JM, Salinero-Fort MA, Garcia-Iglesias F, Gonzalez-Alegre T, Estirado E, et al. Peripheral Atherosclerosis in Patients With Erectile Dysfunction: A Population-Based Study. J Sex Med. 2016;13(1):63-9.

10. Zhang Z, Xu Z, Dai Y, Chen Y. Elevated serum homocysteine level as an independent risk factor for erectile dysfunction: a prospective pilot case-control study. *Andrologia*. 2017;49(6).
11. Rosen R, Altwein J, Boyle P, Kirby RS, Lukacs B, Meuleman E, et al. Lower urinary tract symptoms and male sexual dysfunction: the multinational survey of the aging male (MSAM-7). *Eur Urol*. 2003;44(6):637-49.
12. Li Z, Chen P, Wang J, Mao Q, Xiang H, Wang X, et al. The impact of surgical treatments for lower urinary tract symptoms/benign prostatic hyperplasia on male erectile function: A systematic review and network meta-analysis. *Medicine (Baltimore)*. 2016;95(24):e3862.
13. Molina-Leyva A, Jimenez-Moleon JJ, Naranjo-Sintes R, Ruiz-Carrascosa JC. Sexual dysfunction in psoriasis: a systematic review. *J Eur Acad Dermatol Venereol*. 2015;29(4):649-55.
14. Ji S, Zang Z, Ma H, Gu M, Han Y, Wang L, et al. Erectile dysfunction in patients with plaque psoriasis: the relation of depression and cardiovascular factors. *Int J Impot Res*. 2016;28(3):96-100.
15. Chen YF, Lin HH, Lu CC, Hung CT, Lee MH, Hsu CY, et al. Gout and a Subsequent Increased Risk of Erectile Dysfunction in Men Aged 64 and Under: A Nationwide Cohort Study in Taiwan. *J Rheumatol*. 2015;42(10):1898-905.
16. Murray KS, Bailey J, Zuk K, Lopez-Corona E, Thrasher JB. A prospective study of erectile function after transrectal ultrasonography-guided prostate biopsy. *BJU Int*. 2015;116(2):190-5.
17. Luo L, Xiang Q, Deng Y, Zhao S, Zhu Z, Liu Y, et al. Gout is associated with elevated risk of erectile dysfunction: a systematic review and meta-analysis. *Rheumatol Int*. 2019;39(9):1527-35.
18. Salonia A, Burnett AL, Graefen M, Hatzimouratidis K, Montorsi F, Mulhall JP, et al. Prevention and management of post-prostatectomy sexual dysfunctions part 2: recovery and preservation of erectile function, sexual desire, and orgasmic function. *Eur Urol*. 2012;62(2):273-86.
19. Schauer I, Keller E, Muller A, Madersbacher S. Have rates of erectile dysfunction improved within the past 17 years after radical prostatectomy? A systematic analysis of the control arms of prospective randomized trials on penile rehabilitation. *Andrology*. 2015;3(4):661-5.
20. Ficarra V, Novara G, Ahlering TE, Costello A, Eastham JA, Graefen M, et al. Systematic review and meta-analysis of studies reporting potency rates after robot-assisted radical prostatectomy. *Eur Urol*. 2012;62(3):418-30.
21. Cordeiro ER, Cathelineau X, Thuroff S, Marberger M, Crouzet S, de la Rosette JJ. High-intensity focused ultrasound (HIFU) for definitive treatment of prostate cancer. *BJU Int*. 2012;110(9):1228-42.
22. Williams SB, Lei Y, Nguyen PL, Gu X, Lipsitz SR, Yu HY, et al. Comparative effectiveness of cryotherapy vs brachytherapy for localised prostate cancer. *BJU Int*. 2012;110(2 Pt 2):E92-8.
23. Hatzichristou D, Kirana PS, Banner L, Althof SE, Lonnee-Hoffmann RA, Dennerstein L, et al. Diagnosing Sexual Dysfunction in Men and Women: Sexual History Taking and the Role of Symptom Scales and Questionnaires. *J Sex Med*. 2016;13(8):1166-82.
24. Althof SE, Rosen RC, Perelman MA, Rubio-Aurioles E. Standard operating procedures for taking a sexual history. *J Sex Med*. 2013;10(1):26-35.
25. Rosen RC, Riley A, Wagner G, Osterloh IH, Kirkpatrick J, Mishra A. The international index of erectile function (IIEF): a multidimensional scale for assessment of erectile dysfunction. *Urology*. 1997;49(6):822-30.
26. Khera M, Adaikan G, Buvat J, Carrier S, El-Meliegy A, Hatzimouratidis K, et al. Diagnosis and Treatment of Testosterone Deficiency: Recommendations From the Fourth International Consultation for Sexual Medicine (ICSM 2015). *J Sex Med*. 2016;13(12):1787-804.
27. Davis-Joseph B, Tiefer L, Melman A. Accuracy of the initial history and physical examination to establish the etiology of erectile dysfunction. *Urology*. 1995;45(3):498-502.
28. Ghanem HM, Salonia A, Martin-Morales A. SOP: physical examination and laboratory testing for men with erectile dysfunction. *J Sex Med*. 2013;10(1):108-10.
29. Buvat J, Maggi M, Gooren L, Guay AT, Kaufman J, Morgentaler A, et al. Endocrine aspects of male sexual dysfunctions. *J Sex Med*. 2010;7(4 Pt 2):1627-56.
30. Bhasin S, Cunningham GR, Hayes FJ, Matsumoto AM, Snyder PJ, Swerdloff RS, et al. Testosterone therapy in men with androgen deficiency syndromes: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab*. 2010;95(6):2536-59.
31. Isidori AM, Buvat J, Corona G, Goldstein I, Jannini EA, Lenzi A, et al. A critical analysis of the role of testosterone in erectile function: from pathophysiology to treatment-a systematic review. *Eur Urol*. 2014;65(1):99-112.
32. Heidenreich A, Bastian PJ, Bellmunt J, Bolla M, Joniau S, van der Kwast T, et al. EAU guidelines on prostate cancer. part 1: screening, diagnosis, and local treatment with curative intent-update 2013. *Eur Urol*. 2014;65(1):124-37.
33. Dong JY, Zhang YH, Qin LQ. Erectile dysfunction and risk of cardiovascular disease: meta-analysis of prospective cohort studies. *J Am Coll Cardiol*. 2011;58(13):1378-85.
34. Gandaglia G, Briganti A, Jackson G, Klöner RA, Montorsi F, Montorsi P, et al. A systematic review of the association between erectile dysfunction and cardiovascular disease. *Eur Urol*. 2014;65(5):968-78.
35. Laumann EO, Paik A, Rosen RC. The epidemiology of erectile dysfunction: results from the National Health and Social Life Survey. *Int J Impot Res*. 1999;11 Suppl 1:S60-4.
36. Miner M, Esposito K, Guay A, Montorsi P, Goldstein I. Cardiometabolic risk and female sexual health: the Princeton III summary. *J Sex Med*. 2012;9(3):641-51; quiz 52.

37. Gazzaruso C, Coppola A, Montalcini T, Valenti C, Garzaniti A, Pelissero G, et al. Erectile dysfunction can improve the effectiveness of the current guidelines for the screening for asymptomatic coronary artery disease in diabetes. *Endocrine*. 2011;40(2):273-9.
38. Vlachopoulos C, Ioakeimidis N, Aznaouridis K, Terentes-Printzios D, Rokkas K, Aggelis A, et al. Prediction of cardiovascular events with aortic stiffness in patients with erectile dysfunction. *Hypertension*. 2014;64(3):672-8.
39. Omland T, Randby A, Hrubos-Strom H, Rosjø H, Einvik G. Relation of Erectile Dysfunction to Subclinical Myocardial Injury. *Am J Cardiol*. 2016;118(12):1821-5.
40. Fang SC, Rosen RC, Vita JA, Ganz P, Kupelian V. Changes in erectile dysfunction over time in relation to Framingham cardiovascular risk in the Boston Area Community Health (BACH) Survey. *J Sex Med*. 2015;12(1):100-8.
41. Hatzichristou DG, Hatzimouratidis K, Ioannides E, Yannakoyorgos K, Dimitriadis G, Kalinderis A. Nocturnal penile tumescence and rigidity monitoring in young potent volunteers: reproducibility, evaluation criteria and the effect of sexual intercourse. *J Urol*. 1998;159(6):1921-6.
42. Hatzichristou DG, Hatzimouratidis K, Apostolidis A, Ioannidis E, Yannakoyorgos K, Kalinderis A. Hemodynamic characterization of a functional erection. Arterial and corporeal veno-occlusive function in patients with a positive intracavernosal injection test. *Eur Urol*. 1999;36(1):60-7.
43. Maggi M, Buvat J, Corona G, Guay A, Torres LO. Hormonal causes of male sexual dysfunctions and their management (hyperprolactinemia, thyroid disorders, GH disorders, and DHEA). *J Sex Med*. 2013;10(3):661-77.
44. Montorsi F, Adaikan G, Becher E, Giuliano F, Khoury S, Lue TF, et al. Summary of the recommendations on sexual dysfunctions in men. *J Sex Med*. 2010;7(11):3572-88.
45. Hatzimouratidis K, Salonia A, Adaikan G, Buvat J, Carrier S, El-Meliegy A, et al. Pharmacotherapy for Erectile Dysfunction: Recommendations From the Fourth International Consultation for Sexual Medicine (ICSM 2015). *J Sex Med*. 2016;13(4):465-88.
46. Montorsi F, McCullough A. Efficacy of sildenafil citrate in men with erectile dysfunction following radical prostatectomy: a systematic review of clinical data. *J Sex Med*. 2005;2(5):658-67.
47. Salonia A, Burnett AL, Graefen M, Hatzimouratidis K, Montorsi F, Mulhall JP, et al. Prevention and management of post-prostatectomy sexual dysfunctions. Part 1: choosing the right patient at the right time for the right surgery. *Eur Urol*. 2012;62(2):261-72.
48. Kim DJ, Hawksworth DJ, Hurwitz LM, Cullen J, Rosner IL, Lue TF, et al. A prospective, randomized, placebo-controlled trial of on-Demand vs. nightly sildenafil citrate as assessed by Rigiscan and the international index of erectile function. *Andrology*. 2016;4(1):27-32.
49. Montorsi F, Nathan HP, McCullough A, Brock GB, Broderick G, Ahuja S, et al. Tadalafil in the treatment of erectile dysfunction following bilateral nerve sparing radical retropubic prostatectomy: a randomized, double-blind, placebo controlled trial. *J Urol*. 2004;172(3):1036-41.
50. Nehra A, Grantmyre J, Nadel A, Thibonnier M, Brock G. Vardenafil improved patient satisfaction with erectile hardness, orgasmic function and sexual experience in men with erectile dysfunction following nerve sparing radical prostatectomy. *J Urol*. 2005;173(6):2067-71.
51. Montorsi F, Brock G, Stolzenburg JU, Mulhall J, Moncada I, Patel HR, et al. Effects of tadalafil treatment on erectile function recovery following bilateral nerve-sparing radical prostatectomy: a randomised placebo-controlled study (REACTT). *Eur Urol*. 2014;65(3):587-96.
52. Patel HR, Ilo D, Shah N, Cuzin B, Chadwick D, Andrienne R, et al. Effects of tadalafil treatment after bilateral nerve-sparing radical prostatectomy: quality of life, psychosocial outcomes, and treatment satisfaction results from a randomized, placebo-controlled phase IV study. *BMC Urol*. 2015;15:31.
53. Tajar A, Huhtaniemi IT, O'Neill TW, Finn JD, Pye SR, Lee DM, et al. Characteristics of androgen deficiency in late-onset hypogonadism: results from the European Male Aging Study (EMAS). *J Clin Endocrinol Metab*. 2012;97(5):1508-16.
54. Wang C, Nieschlag E, Swerdloff R, Behre HM, Hellstrom WJ, Gooren LJ, et al. Investigation, treatment, and monitoring of late-onset hypogonadism in males: ISA, ISSAM, EAU, EAA, and ASA recommendations. *Eur Urol*. 2009;55(1):121-30.
55. Sohn M, Hatzinger M, Goldstein I, Krishnamurti S. Standard operating procedures for vascular surgery in erectile dysfunction: revascularization and venous procedures. *J Sex Med*. 2013;10(1):172-9.
56. Yuan J, Zhang R, Yang Z, Lee J, Liu Y, Tian J, et al. Comparative effectiveness and safety of oral phosphodiesterase type 5 inhibitors for erectile dysfunction: a systematic review and network meta-analysis. *Eur Urol*. 2013;63(5):902-12.
57. Goldstein I, Lue TF, Padma-Nathan H, Rosen RC, Steers WD, Wicker PA. Oral sildenafil in the treatment of erectile dysfunction. Sildenafil Study Group. *N Engl J Med*. 1998;338(20):1397-404.
58. Moncada I, Jara J, Subira D, Castano I, Hernandez C. Efficacy of sildenafil citrate at 12 hours after dosing: re-exploring the therapeutic window. *Eur Urol*. 2004;46(3):357-60; discussion 60-1.
59. Giuliano F, Jackson G, Montorsi F, Martin-Morales A, Raillard P. Safety of sildenafil citrate: review of 67 double-blind placebo-controlled trials and the postmarketing safety database. *Int J Clin Pract*. 2010;64(2):240-55.
60. Goldstein I, Tseng LJ, Creanga D, Stecher V, Kaminetsky JC. Efficacy and Safety of Sildenafil by Age in Men With Erectile Dysfunction. *J Sex Med*. 2016;13(5):852-9.
61. Chen L, Staubli SE, Schneider MP, Kessels AG, Ivic S, Bachmann LM, et al. Phosphodiesterase 5 inhibitors for the treatment of erectile dysfunction: a trade-off network meta-analysis. *Eur Urol*. 2015;68(4):674-80.

62. Gacci M, Andersson KE, Chapple C, Maggi M, Mirone V, Oelke M, et al. Latest Evidence on the Use of Phosphodiesterase Type 5 Inhibitors for the Treatment of Lower Urinary Tract Symptoms Secondary to Benign Prostatic Hyperplasia. *Eur Urol.* 2016;70(1):124-33.
63. Sanford M. Vardenafil orodispersible tablet. *Drugs.* 2012;72(1):87-98.
64. Kyle JA, Brown DA, Hill JK. Avanafil for erectile dysfunction. *Ann Pharmacother.* 2013;47(10):1312-20.
65. Ferrini MG, Kovanecz I, Sanchez S, Vernet D, Davila HH, Rajfer J, et al. Long-term continuous treatment with sildenafil ameliorates aging-related erectile dysfunction and the underlying corporal fibrosis in the rat. *Biol Reprod.* 2007;76(5):915-23.
66. Kovanecz I, Rambhatla A, Ferrini MG, Vernet D, Sanchez S, Rajfer J, et al. Chronic daily tadalafil prevents the corporal fibrosis and veno-occlusive dysfunction that occurs after cavernosal nerve resection. *BJU Int.* 2008;101(2):203-10.
67. Swearingen D, Nehra A, Morelos S, Peterson CA. Hemodynamic effect of avanafil and glyceryl trinitrate coadministration. *Drugs Context.* 2013;2013:212248.
68. Nehra A, Jackson G, Miner M, Billups KL, Burnett AL, Buvat J, et al. The Princeton III Consensus recommendations for the management of erectile dysfunction and cardiovascular disease. *Mayo Clin Proc.* 2012;87(8):766-78.
69. Marchal-Escalona C, Herrera-Imbroda B, Clemente-Postigo M, Alcaide-Torres J, Quinonero A, Marchal M, et al. PDE5A Polymorphisms Influence on Sildenafil Treatment Success. *J Sex Med.* 2016;13(7):1104-10.
70. Yuan J, Hoang AN, Romero CA, Lin H, Dai Y, Wang R. Vacuum therapy in erectile dysfunction--science and clinical evidence. *Int J Impot Res.* 2010;22(4):211-9.
71. Pajovic B, Dimitrovski A, Fatic N, Malidzan M, Vukovic M. Vacuum erection device in treatment of organic erectile dysfunction and penile vascular differences between patients with DM type I and DM type II. *Aging Male.* 2017;20(1):49-53.
72. Costa P, Potempa AJ. Intraurethral alprostadil for erectile dysfunction: a review of the literature. *Drugs.* 2012;72(17):2243-54.
73. Eardley I, Donatucci C, Corbin J, El-Meliegy A, Hatzimouratidis K, McVary K, et al. Pharmacotherapy for erectile dysfunction. *J Sex Med.* 2010;7(1 Pt 2):524-40.
74. Montague DK. Penile prosthesis implantation in the era of medical treatment for erectile dysfunction. *Urol Clin North Am.* 2011;38(2):217-25.
75. Hellstrom WJ, Montague DK, Moncada I, Carson C, Minhas S, Faria G, et al. Implants, mechanical devices, and vascular surgery for erectile dysfunction. *J Sex Med.* 2010;7(1 Pt 2):501-23.
76. Lee D, Romero C, Alba F, Westney OL, Wang R. Simultaneous penile prosthesis and male sling/artificial urinary sphincter. *Asian J Androl.* 2013;15(1):10-5.
77. Pisano F, Falcone M, Abbona A, Oderda M, Soria F, Peraldo F, et al. The importance of psychosexual counselling in the re-establishment of organic and erotic functions after penile prosthesis implantation. *Int J Impot Res.* 2015;27(5):197-200.
78. Trost LW, McCaslin R, Linder B, Hellstrom WJ. Long-term outcomes of penile prostheses for the treatment of erectile dysfunction. *Expert Rev Med Devices.* 2013;10(3):353-66.
79. Zargaroff S, Sharma V, Berhanu D, Pearl JA, Meeks JJ, Dupree JM, et al. National trends in the treatment of penile prosthesis infections by explantation alone vs. immediate salvage and reimplantation. *J Sex Med.* 2014;11(4):1078-85.
80. Christodoulidou M, Pearce I. Infection of Penile Prostheses in Patients with Diabetes Mellitus. *Surg Infect (Larchmt).* 2016;17(1):2-8.
81. Mulcahy JJ. Long-term experience with salvage of infected penile implants. *J Urol.* 2000;163(2):481-2.
82. Henry GD, Donatucci CF, Conners W, Greenfield JM, Carson CC, Wilson SK, et al. An outcomes analysis of over 200 revision surgeries for penile prosthesis implantation: a multicenter study. *J Sex Med.* 2012;9(1):309-15.
83. Gross MS, Phillips EA, Balen A, Eid JF, Yang C, Simon R, et al. The Malleable Implant Salvage Technique: Infection Outcomes after Mulcahy Salvage Procedure and Replacement of Infected Inflatable Penile Prosthesis with Malleable Prosthesis. *J Urol.* 2016;195(3):694-7.