# MESANE KANSERİNDE GERİATRİK HASTA YÖNETİMİ

37. BÖLÜM

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## GİRİŞ

### Epidemiyoloji

Mesane kanseri tüm kanserler arasında dünya genelinde 9. Sıklıkta, Avrupa ve Kuzey Amerika'da 5. sıklıkta görülen kanser türüdür (1). Globocan 2018 verilerine göre ülkemizde 11.235 vaka ile tüm kanserlerin %5.3'ünü teşkil eder ve 7. sıklıkta saptanmıştır (2). 2030 yılına kadar insidansı en çok artan kanserler arasında olacağı tahmin edilmektedir (3). Erken evre mesane kanseri tanısı almış hastaların çoğu yapılan lokal tedaviler neticesinde uzun yaşam ömrüne sahipler ve tekrarlayan nükslerle takip edilirler. Bu nedenle özellikle geriatrik erkek hasta popülasyonunda prostat kanseri ile birlikte prevelansı en yüksek kanserlerdendir (4).

Amerika Birleşik Devletleri (ABD) verilerine göre kadınlarda ortalama tanı yaşı 71 iken, erkeklerde 69'dur. Erkeklerde 65-69 yaş aralığında insidansı 100,000'de 142 iken 85 yaş ve üzerinde 296'dır. Aynı yaş aralığındaki kadınlardaki insidansı sırasıyla 100,000'de 33 ve 74'tür. Aktif sigara içicilerinde daha erken yaşlarda görülür (6). Çocuklarda ve genç erişkinlerde ise çok nadir olarak görülmekte birlikte genellikle düşük gradeli ve non-invaziv hastalık ile prezente olur (7). Kadın hastalarda insidansın daha az olmasının yanında daha erken evrede tanı alırlar ve prognoz daha iyidir (8). Üretelyal karsinom çoğunlukla batı toplumunda ve beyaz ırkta görülürken, non-üretelyal karsinom (özellikle skuamöz hücreli karsinom) kronik mesane enfeksiyonun (schistosomal veya non-schistosomal) daha fazla görüldüğü ortadoğu toplumlarında daha sık görülür.

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hastalar ve performans skoru kötü olan hastalarda, yaşam beklentisi de göz önüne alınarak hastanın konforunu bozmayacak tedaviler seçilmelidir.

Kasa invaze olmayan mesane kanserinde tedavi stratejisi genç hastalardan farklı değildir. İntravezikal tedavileri planlarken yaştan bağımsız değerlendirme yapılmaldır. Surveyans döneminde ve nüks durumunda hasta bazlı takip ve tedavi seçenekleri değerlendirilmelidir. Kasa invaze mesane kanseri agresif ve mortalitesi olan bir tümör olması nedeniyle fizyolojik yaştan bağımsız, fit ve yaşam beklentisi olan hastalarda, hasta ve yakınları ile her tedavi modalitesinin artı-eksilerini tartışarak planlama yapılmalıdır. Performansı iyi hastalarda radikal sistektomi tercih edilmelidir. Fit hastalarda perioperatif kemoterapi eklenmelidir. Tümörün özelliklerine, hasta ve hekim tercihine bağlı olarak kasa invaze tümörde trimodal tedavi, tek başına TURBT ve radyoterapi de seçenek olarak değerlendirilmelidir.

Metastatik evrede prognoz ve tedavi amaçları hasta ve hasta yakınları ile paylaşılmalı ve tedavi seçenekleri tartışmaldır. Platin bazlı tedaviler hala birinci seçenek olsalar da immun kontrol noktası inhibitörleri yüksek yanıt oranları ve düşük yan etki oranları nedenleri ile yaşlı hastalar için önemli birer seçenek olabilirler. Hasta bazlı olarak değerlendirilmelidir. Palyatif destek tedavileri her aşamada etkin olarak kullanılmalıdır.

## KAYNAKÇA


1. http://seer.cancer.gov/statfacts/html/urinb.html adresinden 11.12.2020 tarihinde alınmıştır.
2. https://gco.iarc.fr/today/data/factsheets/populations/792-turkey-fact-sheets.pdf adresinden 11.12.2020 tarihinde alınmıştır.
3. Smith BD, Smith GL, Hurria A, et al. Future of cancer incidence in the United States: burdens upon an aging, changing nation. J Clin Oncol 2009;27:2758–65.
4. Vercelli M, Quaglia A, Parodi S, Crosignani P Tumori. Cancer prevalence in the elderly. ITAPREVAL Working Group. 1999;85(5):391.
5. Bladder cancer develops 6 years earlier in current smokers: analysis of bladder cancer registry data collected by the cancer registration committee of the Japanese Urological Association. Hinotsu S, Akaza H, Miki T, Fujimoto H, Shinohara N, Kikuchi E, Mizutani Y, Koga H, Okajima E, Okuyama A, Japanese Urological Association. Int J Urol. 2009;16(1):64.
6. The molecular characteristics of bladder cancer in young patients. Linn JF, Sesterhenn I, Mostofi FK, Schoenberg M. J Urol. 1998;159(5):1493.
7. Sex and racial differences in bladder cancer presentation and mortality in the US. Scosyrev E, Noyes K, Feng C, Messing E .Cancer. 2009;115(1):68.
8. Cigarette smoking: cancer risks, carcinogens, and mechanisms. Hecht SO Langenbech Arch Surg. 2006;391(6):603. Epub 2006 Oct 10.
9. Association between smoking and risk of bladder cancer among men and women.Freedman ND, Silverman DT, Hollenbeck AR, Schatzkin A, Abnet CC . JAMA. 2011;306(7):737.
10. Occupation and cancer of the lower urinary tract. Cole P, Hoover R, Friedell GH Cancer. 1972;29(5):1250.
11. Meta-analysis of studies on individual consumption of chlorinated drinking water and bladder cancer. Villanueva CM, Fernández F, Malats N, Grimalt JO, Kogevinas M J Epidemiol Community Health. 2003;57(3):166.

12. Fifty-year study of lung and bladder cancer mortality in Chile related to arsenic in drinking water. Marshall G, Ferreccio C, Yuan Y, Bates MN, Steinmaus C, Selvin S, Liaw J, Smith AH. J Natl Cancer Inst. 2007;99(12):920. Epub 2007 Jun 12.
13. Fluid intake and the risk of bladder cancer in men. Michaud DS, Spiegelman D, Clinton SK, Rimm EB, Curhan GC, Willett WC, Giovannucci EL. N Engl J Med. 1999;340(18):1390.
14. https://www.uptodate.com/contents/epidemiology-and-risk-factors-of-urothelial-transitional-cell-carcinoma-of-the-bladder. Adresinden 11.12.2020 tarihinde alınmıştır.
15. Human papillomavirus infection and bladder cancer risk: a meta-analysis. Li N, Yang L, Zhang Y, Zhao P, Zheng T, Dai M . J Infect Dis. 2011;204(2):217.
16. Tumor in bladder reservoir after gastrocystoplasty.Castellan M, Gosalbez R, Perez-Brayfield M, Healey P, McDonald R, Labbie A, Lendvay T . J Urol. 2007;178(4 Pt 2):1771.
17. Second primary cancer after treatment for cervical cancer. An international cancer registries study. Kleinerman RA, Boice JD Jr, Storm HH, Sparen P, Andersen A, Pukkala E, Lynch CF, Hankey BF, Flannery JT . Cancer. 1995;76(3):442.
18. Bladder and kidney cancer following cyclophosphamide therapy for non-Hodgkin's lymphoma. Travis LB, Curtis RE, Glimelius B, Holowaty EJ, Van Leeuwen FE, Lynch CF, Hagenbeek A, Stovall M, Banks PM, Adami J. J Natl Cancer Inst. 1995;87(7):524.
19. Cyclophosphamide-induced cystitis and bladder cancer in patients with Wegener granulomatosis. Talar-Williams C, Hijazi YM, Walther MM, Linehan WM, Hallahan CW, Lubensky I, Kerr GS, Hoffman GS, Fauci AS, Sneller MC Ann Intern Med. 1996;124(5):477.
20. Bladder cancer risk as modified by family history and smoking. Lin J, Spitz MR, Dinney CP, Etzel CJ, Grossman HB, Wu X Cancer. 2006;107(4):705.
21. Cancer Susceptibility Mutations in Patients With Urothelial Malignancies. Carlo MI, Ravichandran V, Srinavasan P. J Clin Oncol. 2020;38(5):406. Epub 2019 Dec 3
22. Branch RA, Chern HD, Adedoyin A, et al. The procarcinogen hypothesis for bladder cancer: activities of individual drug metabolizing enzymes as risk factors. Pharmacogenetics 1995; 5 Spec No:S97.
23. Hein DW. N-acetyltransferase 2 genetic polymorphism: effects of carcinogen and haplotype on urinary bladder cancer risk. Oncogene 2006; 25:1649.
24. A prospective analysis of 1,930 patients with hematuria to evaluate current diagnostic practice. Khadra MH, Pickard RS, Charlton M, Powell PH, Neal DE . J Urol. 2000;163(2):524.
25. Metabolic characterization of tumor cell-specific protoporphyrin IX accumulation after exposure to 5-aminolevulinic acid in human colonic cells. Krieg RC, Messmann H, Rauch J, Seeger S, Knuechel R . Photochem Photobiol. 2002;76(5):518.
26. https://www.uptodate.com/contents/pathology-of-bladder-neoplasms adresinden 11.12.2020 arihinde alınmıştır.
27. Discrepancy between clinical and pathologic stage: impact on prognosis after radical cystectomy.Shariat SF, Palapattu GS, Karakiewicz PI, Rogers CG, Vazina A, Bastian PJ, Schoenberg MP, Lerner SP, Sagalowsky AI, Lotan Y . Eur Urol. 2007;51(1):137.
28. Outcomes of radical cystectomy for transitional cell carcinoma of the bladder: a contemporary series from the Bladder Cancer Research Consortium. Shariat SF, Karakiewicz PI, Palapattu GS, Lotan Y, Rogers CG, Amiel GE, Vazina A, Gupta A, Bastian PJ, Sagalowsky AI, Schoenberg MP, Lerner SP J Urol. 2006;176(6 Pt 1):2414.
29. http://globocan.iarc.fr/Pages/fact_sheets_population.aspatient. Adresinden 11.12.2020 tarihinde alnımıştır.
30. http://www.who.int/ageing/publications/global_health.pdf?ua=1 adresinden 17.6.2018 tarihinde alınmıştır.
31. Incidence, survival and mortality rates of stage-specific bladder cancer in United States: a trend analysis. Abdollah F, Gandaglia G, Thuret R. Cancer Epidemiol. 2013 Jun;37(3):219-25. Epub 2013 Feb 26.
32. Kanesvaran R, Saux OL, Motzer R, et al. Elderly patients with metastatic renal cell carcinoma: position paper from the International Society of Geriatric Oncology. Lancet Oncol 2018 Jun;19(6):e317-326.11.

33. Fonteyne V, Ost P, Bellmunt J, et al. Curative treatment for muscle invasive bladder Cancer in older adult patients: a systematic review. Eur Urol 2018 Jan;73(1):40–50.
34. Droz JP, Albrand G, Gillessen S, et al. Management of prostate cancer in elderly patients: recommendations of a Task Force of the International Society of Geriatric Oncology. Eur Urol 2017;72:521–31.
35. Babjuk M, Bohle A, Burger M, et al. EAU guidelines on non-muscle-invasive urothelial carcinoma of the bladder: update 2016. Eur Urol 2017;71(3):447–61.
36. Shariat SF, Milowsky M, Droller MJ. Bladder cancer in the older adult. Urol Oncol 2009;27(6):653–67.
37. Hofbauer SL, Shariat SF, Klatte T. Non-muscle-invasive bladder cancer in the elderly patient. Curr Geriatr Rep 2014;3(1):42–7.
38. Berger M, Nadler JW, Browndyke J, et al. Postoperative cognitive dysfunction: minding the gaps in our knowledge of a common postoperative complication in the elderly. Anesthesiol Clin 2015 Sep;33(3):517–50.
39. SolowayMS. Bladder cancer: active surveillance for low-grade ta bladder tumours. Nat Rev Urol 2016;13(6):303–4.
40. Heijnsdijk EAM, Nieboer D, Garg T et al. Cost-effectiveness of surveillance schedules in older adults with non-muscle-invasive bladder cancer. BJU International Accepted.
41. NCCN Older Adult Oncology Guidelines.
42. Oddens JR, Sylvester RJ, Brausi MA, Kirkels WJ, van de Beek C, van Andel G, et al. Increasing age is not associated with toxicity leading to discontinuation of treatment in patients with urothelial non-muscle-invasive bladder cancer randomised to receive 3 years of maintenance bacille Calmette-Guerin: results from European Organisation for Research and Treatment of Cancer Genito-Urinary Group study 30911. BJU Int 2016;118(3):423–8.
43. Suskind AM, Walter LC, Jin C, et al. Impact of frailty on complications in patients undergoing common urological procedures: a study from the American College of Surgeons National Surgical Quality Improvement database. BJU Int 2016 May;117 (5):836–42.
44. Oddens JR, Sylvester RJ, Brausi MA, Kirkels WJ, van de Beek C, van Andel G, et al. The effect of age on the efficacy of maintenance bacillus Calmette-Guerin relative to maintenance epirubicin in patients with stage Ta T1 urothelial bladder cancer: results from EORTC genito-urinary group study 30911. Eur Urol 2014;66(4):694–701.
45. Noon AP, Albertsen PC, Thomas F, Rosario DJ, Catto JW. Competing mortality in patients diagnosed with bladder cancer: evidence of undertreatment in the elderly and female patients. Br J Cancer 2013;108(7):1534–40.
46. Gakis G, Efstathiou J, Lerner SP, Cookson MS, Keegan KA, Guru KA, et al. ICUD-EAU International Consultation on Bladder Cancer 2012: radical cystectomy and bladder preservation for muscle-invasive urothelial carcinoma of the bladder. Eur Urol 2013;63(1):45–57.
47. Gschwend J, Heck M, Lehmann J, et al. Limited vs. extended pelvic lymphadenectomy in patients with bladder cancer undergoing radical cystectomy: Survival results from a prospective, randomized trial (LEA AUO AB 25/02). J Clin Oncol Suppl.34(15suppl):4503.
48. Witjes JA, Comperat E, Cowan NC, De Santis M, Gakis G, Lebret T, et al. EAU guidelines on muscle-invasive and metastatic bladder cancer: summary of the 2013 guidelines. Eur Urol 2014;65(4):778–92.
49. Nicolas Mottet a,*, Maria J. Ribal b, Helen Boyle. Management of bladder cancer in older patients: Position paper of a SIOG Task Force. Journal of Geriatric Oncology 11 (2020) 1043-1053
50. NCCN.http://www.nccn.org/professionals/physician_gls/PDF/bladder.pdf.
51. Witjes AJ, Lebret T, Comperat EM, Cowan NC, De Santis M, Bruins HM, et al. EAU guidelines on muscle-invasive and metastatic bladder Cancer. Eur Urol 2017;71: 462–75.
52. Bellmunt J, Orsola A, Leow JJ, et al. Bladder cancer: ESMO Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol 2014 Sep;25(Suppl. 3):iii40–8.
53. Sternberg CN, de Mulder PH, Schornagel JH, For the EORTC Genitourinary Tract Cancer

Cooperative Group. Randomized phase III trial of high-dose-intensitymethotrexate, vinblastine, doxorubicin, and cisplatin (MVAC) chemotherapy and recombinant human granulocyte colony-stimulating factor versus classic MVAC in advanced urothelial tract tumors: European Organization for Research and Treatment of Cancer Protocol no. 30924. J Clin Oncol 2001;19(10):2638–46.
54. Bamias A, Efstathiou E, Moulopoulos LA, et al. The outcome of elderly patients with advanced urothelial carcinoma after platinum-based combination chemotherapy. Ann Oncol 2005;16:307–13.
55. Dash A, GalskyMD, Vickers AJ, Serio AM, Koppie TM, Dalbagni G, et al. Impact of renal impairment on eligibility for adjuvant cisplatin-based chemotherapy in patients with urothelial carcinoma of the bladder. Cancer 2006 Aug 1;107 (3):506–13.
56. Aziz A, MayM, BurgerM, et al. PROMETRICS 2011 research group. Prediction of 90- daymortality after radical cystectomy for bladder cancer in a prospective European multicenter cohort. Eur Urol 2014 Jul;66(1):156–63.
57. GalskyMD, Chen GJ, OhWK, et al. Comparative effectiveness of cisplatin-based and carboplatin-based chemotherapy for treatment of advanced urothelial carcinoma. Ann Oncol 2012 Feb;23(2):406–10.
58. Shipley WU, Winter KA, Kaufman DS, et al. Phase III trial of neoadjuvant chemotherapy in patients with invasive bladder cancer treated with selective bladder preservation by combined radiation therapy and chemotherapy: initial results of Radiation Therapy Oncology Group 89-03. J Clin Oncol 1998 Nov;16(11):3576–83.
59. James ND, Hussain SA, Hall E, et al. Radiotherapy with or without chemotherapy in muscle-invasive bladder cancer. N Engl J Med 2012;366:1477–88.
60. Caffo O, Thompson C, De Santis M, et al. Concurrent gemcitabine and radiotherapy for the treatment of muscle-invasive bladder cancer: a pooled individual data analysis of eight phase I-II trials. Radiother Oncol 2016;121:193–8.
61. Trainor S, Choudhury A, Huddart R, et al. The National Institute for Health and Care Excellence (NICE) Guidance on Bladder Cancer; a Step in the Right Direction? Clin Oncol (R Coll Radiol) 2017;29(6):344–7.
62. Christodoulou M, Reeves KJ, Hodgson C, et al. Outcomes of radiosensitisation in elderly patients with advanced bladder cancer. Radiother Oncol 2018 Jun 2;129: 499–506 S0167-8140(18)30281.
63. Ploussard G, Daneshmand S, Efstathiou JA, et al. Critical analysis of bladder sparing with trimodal therapy in muscle-invasive bladder cancer: a systematic review. Eur Urol 2014 Jul;66(1):120–37.
64. Giacalone NJ, Shipley WU, Clayman RH, et al. Long-term outcomes after bladderpreserving tri-modality therapy for patients with muscle-invasive bladder Cancer: an updated analysis of the Massachusetts General Hospital experience. Eur Urol2017-2018;71(6):952–60.
65. Efstathiou JA, Spiegel DY, Shipley WU, et al. Long-term outcomes of selective bladder preservation by combined-modality therapy for invasive bladder cancer: the MGH experience. Eur Urol 2012; 61:705.
66. Shipley WU, Winter KA, Kaufman DS, et al. Phase III trial of neoadjuvant chemotherapy in patients with invasive bladder cancer treated with selective bladder preservation by combined radiation therapy and chemotherapy: initial results of Radiation Therapy Oncology Group 89-03. J Clin Oncol 1998; 16:3576.
67. Fung CY, Shipley WU, Young RH, et al. Prognostic factors in invasive bladder carcinoma in a prospective trial of preoperative adjuvant chemotherapy and radiotherapy. J Clin Oncol 1991; 9:1533.
68. Ploussard G, Daneshmand S, Efstathiou JA, et al. Critical analysis of bladder sparing with trimodal therapy in muscle-invasive bladder cancer: a systematic review. Eur Urol 2014; 66:120.
69. Stein JP, Lieskovsky G, Cote R, Groshen S, Feng AC, Boyd S, et al. Radical cystectomy in

the treatment of invasive bladder cancer: long-term results in 1,054 patients. J Clin Oncol 2001;19(3):666–75.
70. Herr HW. The value of a second transurethral resection in evaluating patients with bladder tumors. J Urol 1999;162(1):74–6.
71. Solsona E, Iborra I, Collado A, Rubio-Briones J, Casanova J, Calatrava A. Feasibility of radical transurethral resection as monotherapy for selected patients with muscle invasive bladder cancer. J Urol 2010;184(2):475–80.
72. Galsky MD, Krege S, Lin CC, Hahn N, Ecke TH,Moshier E, et al. Cisplatin-based combination chemotherapy in septuagenarians with metastatic urothelial cancer. Urol Oncol 2014;32(1) 30.e15–21.
73. Raj GV, Iasonos A, Herr H, Donat SM. Formulas calculating creatinine clearance are inadequate for determining eligibility for cisplatin-based chemotherapy in bladder cancer. J Clin Oncol 2006;24(19):3095–100.
74. Balar AV, et al. Atezolizumab as first-line treatment in cisplatin-ineligible patients with locally advanced and metastatic urothelial carcinoma: a single-arm, multicentre, phase 2 trial. Lancet 2017 Jan 7;389(10064):67–76.
75. Castellano D, Grivas P, Plimack E, et al. Pembrolizumab (pembro) as first-line therapy in elderly patients (pts) with poor performance status with cisplatin-ineligible advanced urothelial cancer (UC): Results from Keynote-052. Eur Urol 2018;17(2): e124–5.
76. Powles T, Park SH, Voog E, et al. Avelumab Maintenance Therapy for Advanced or Metastatic Urothelial Carcinoma. N Engl J Med 2020; 383:1218. Sharma P, et al. Nivolumab in metastatic urothelial carcinoma after platinum therapy (CheckMate 275): a multicentre, single-arm, phase 2 trial. Lancet Oncol 2017;18:312.
77. Bellmunt J, de Wit R, Vaughn DJ, Fradet Y, et al. KEYNOTE-045 investigators. Pembrolizumab as second-line therapy for advanced Urothelial carcinoma. N Engl J Med 2017 Mar 16;376(11):1015–26.
78. Powles T, et al. Atezolizumab versus chemotherapy in patients with platinumtreated locally advanced or metastatic urothelial carcinoma (IMvigor211): a multicentre, open-label, phase 3 randomised controlled trial. Lancet 2018 Feb 24; 391(10122):748–57.
79. Apolo AB, Infante JR, Balmanoukian A, et al. Avelumab, an anti-programmed death-ligand 1 antibody, in patients with refractory metastatic urothelial carcinoma: results from a multicenter, Phase Ib Study. J Clin Oncol 2017;35: 2117–24.
80. Powles T, et al. Efficacy and safety of Durvalumab in locally advanced or metastatic Urothelial carcinoma: updated results from a phase 1/2 open-label study. JAMA Oncol 2017;14:3(9).