



Castratieresistent prostaatcarcinoom

Auteur: prof. dr. Th. M. de Reijke

Informatie

Prostaatcarcinoom is een heterogene ziekte. In de dagelijkse praktijk worden vaak een hormonaal gevoelige en een castratieresistente fase onderscheiden in het beloop van de ziekte. De rol van androgenen en androgeenreceptoren (AR) hierin is niet volledig opgehelderd, maar wordt wel steeds duidelijker. In het algemeen wordt aangenomen dat de onderliggende mechanismen die leiden tot androgeenonafhankelijkheid zowel AR-afhankelijk als AR-onafhankelijk zijn. Deze mechanismen zijn deels overlappend. De term castratieresistent prostaatcarcinoom wordt voornamelijk gebruikt vanwege de implicaties van recente bevindingen dat prostaatcarcinoom niet uniform refractair is voor hormonale manipulatie en dat androgenen en de progressie van ziekte veelal afhankelijk zijn (of in ieder geval niet onafhankelijk) van androgeen-androgeen-receptorinteracties. Het castratieresistente maar nog steeds hormoongevoelige prostaatcarcinoom is nu duidelijker gekarakteriseerd, waarbij nieuwe medicamenten gericht op ofwel de androgeenreceptor, zoals enzalutamide, of androgeensynthese via CYP17-inhibitie zoals abirateron, worden beschreven. Daarnaast komt de rol van chemotherapie (docetaxel en cabazitaxel) bij het castratieresistente prostaatcarcinoom aan de orde en de plaatsbepaling van docetaxel bij het hormoon-naïeve prostaatcarcinoom.

Leerdoelen

Na het volgen van deze cursus:

- kunt u omschrijven hoe de diagnose castratieresistent prostaatcarcinoom (CRPC) gesteld wordt
- kunt u beschrijven hoe een patiënt met mCRPC goed te stageren
- kunt u diverse behandelingsmodaliteiten voor mCRPC noemen
- kunt u bijwerkingen van de verschillende behandelingen voor mCRPC benoemen
- kunt u de klinische implicaties van de Nederlandse richtlijn voor de behandeling van mCRPC verklaren
- kunt u de klinische implicaties van deze richtlijn voor mCRPC hanteren als het gaat om: (1) prognostische factoren; (2) predictieve factoren; (3) kruisresistentie
- kunt u patiënten ondersteunen bij hun besluitvorming rondom therapiekeuzes voor mCRPC

Inhoud

Inleiding
Epidemiologie
Diagnostiek
Behandeling
Behandeling van botmetastasen
Toekomst
Eindtoets

Referenties

- Alberts AS, Smit BJ, Louw WK, et al. Dose response relationship and multiple dose efficacy and toxicity of samarium-153-EDTMP in metastatic cancer to bone. *Radiother Oncol* 1997; 43:175-9.
- Antanorakis ES, Changxue L, Brandon L, et al. Androgen receptor splice variant 7 and efficacy of taxane chemotherapy in patients with metastatic castration-resistant prostate cancer. *JAMA Oncol* 2015 [Epub ahead of print].
- Antonarakis ES, Lu C, Wang H, et al. AR-V7 and resistance to enzalutamide and abiraterone in prostate cancer. *N Engl J Med* 2014;371(11):1028-38.
- Arnold M, Karim-Kos HE, Coebergh JW, et al. Recent trends in incidence of five common cancers in 26 European countries since 1988: Analysis of the European Cancer Observatory. *Eur J Cancer*. 2013 Epub ahead of print.
- Bahl M, Masson S, Malik Z, et al. Final quality of life and safety data for patients with metastatic castration-resistant prostate cancer treated with cabazitaxel in the UK Early Access Programme (EAP) (NCT01254279). *BJU Int*. 2015 [Epub ahead of print].
- Beer TM, Armstrong AJ, Rathkopf DE, et al. Enzalutamide in metastatic prostate cancer before chemotherapy. *N Engl J Med* 2014;371:424-33.
- Berthold DR, Pond GR, Soban F, et al. Docetaxel + prednisone or mitoxantrone plus prednisone for advanced prostate cancer: Updated survival in the TAX 327 study. *J Clin Oncol* 2008;26:242-5.
- Bissery MC. Preclinical evaluation of new taxoids. *Curr Pharm Des* 2001;7(13):1251-7.
- Bodei L, Lam M, Chies C, et al. EANM procedure guideline for treatment of refractory metastatic bone pain. *Eur J Nucl Med Mol Imaging* 2008;35:1934-40.
- Chow E, Meyer RM, Chen BE, et al. Impact of reirradiation of painful osseous metastases on quality of life and function: a secondary analysis of the NCIC CTG SC.20 randomized trial. *J Clin Oncol* 2014; 32:3867-73.
- Collins C, Eary JF, Donaldson G, et al. Samarium-153-ED TMP in bone metastases of hormone refractory prostate carcinoma: a phase I/II trial. *J Nucl Med* 1993;34:1839-44.
- De Angelis R, Sant M, Coleman MP, et al; EUROCARE-5 Working Group. Cancer survival in Europe 1999-2007 by country and age: results of EUROCARE-5-a population-based study. *Lancet Oncol* 2014 Jan;15(1):23-34.
- De Bono JS, Logothetis CJ, Molina A, et al. Abiraterone and increased survival in metastatic prostate cancer. *N Engl J Med*. 2011; 364:1995-2005.
- De Bono JS, Oudard S, Ozguroglu M, et al. Prednisone plus cabazitaxel or mitoxantrone for metastatic castration-resistant prostate cancer progressing after docetaxel treatment: a randomised open-label trial. *Lancet* 2010;376:1147-54.
- EAU-guidelines van 2015, <http://uroweb.org/guideline/prostate-cancer/>(wordt ook opgenomen in de update van de richtlijn NvU, 2015).
- Eisenhauer EA, Therasse P, Bogaerts J, et al. New response evaluation criteria in solid tumours: revised RECIST guideline (version 1.1). *Eur J Cancer* 2009;45:228-47.

- Fitzpatrick JM en De Wit R. Taxane mechanisms of action: potential implications for treatment sequencing in metastatic castration-resistant prostate cancer. *Eur Urol* 2014;65:1198-204.
- Fizazi K, Scher AI, Molina A, et al. Abiraterone acetate for treatment of metastatic castration-resistant prostate cancer: final overall survival analysis of the COU-AA-301 randomised, double-blind, placebo-controlled phase 3 study. *Lancet Oncol* 2012;13:983-92.
- Fizazi K, Scher HI, Miller K, et al. Effect of enzalutamide on time to first skeletal-related event, pain, and quality of life in men with castration-resistant prostate cancer: results from the randomised, phase 3 AFFIRM trial. *Lancet Oncol*. 2014; 15:1147-56.
- Giammarile F, Mognetti T, Resche I. Bone pain palliation with strontium-89 in cancer patients with bone metastases. *Q J Nucl Med* 2001;45(1):78-83.
- Goyal J, Antonarakis ES. Bone-targeting radiopharmaceuticals for the treatment of prostate cancer with bone metastases. *Cancer Lett*. 2012;323:135-46.
- Gravis G, Fizazi K, Joly F, et al. Androgen-deprivation therapy alone or with docetaxel in non-castrate metastatic prostate cancer (GETUG-AFU 15): a randomised, open-label, phase 3 trial. *Lancet Oncol*. 2013 Feb;14(2):149-58.
- Hoskin P, Sartor O, O'Sullivan JM, et al. Efficacy and safety of radium-223 dichloride in patients with castration-resistant prostate cancer and symptomatic bone metastases, with or without previous docetaxel use: a prespecified subgroup analysis from the randomised, double-blind, phase 3 ALSYMPCA trial. *The Lancet Oncol* 2014;15:1397-1406.
- James ND, Sydes MR, Mason MD, et al. Docetaxel and/or zoledronic acid for hormone-naïve prostate cancer: First overall survival results from STAMPEDE (NCT00268476) *J Clin Oncol* 33:5s, 2015 (suppl; abstr 5001).
- Kantoff PW, Higano CS, Shore ND, et al. Sipuleucel-T immunotherapy for castration-resistant prostate cancer. *N Engl J Med* 2010;363:411-22.
- Kelly WK, Scher HI. Prostate specific antigen decline after antiandrogen withdrawal: the flutamide withdrawal syndrome. *J Urol* 1993, 149: 607-609.
- Kwaliteit van kankerzorg in Nederland: voortgang en blik op de toekomst. Januari 2014.
- Kwon ED, Drake CG, Scher HI, et al IpiLimumab versus placebo after radiotherapy in patients with metastatic castration-resistant prostate cancer that had progressed after docetaxel chemotherapy (CA184-043): a multicentre, randomised, double-blind, phase 3 trial. *Lancet Oncol* 2014;7:700-12.
- Lecouvet FE, Simon M, Tombal B, et al. Whole-body MRI (WB-MRI) versus axial skeleton MRI (AS-MRI) to detect and measure bone metastases in prostate cancer (PCa). *Eur Radiol*. 2010, 12:2973-82.
- Liepe K, Hliscs R, Kropp J, et al. *Rhenium-188-HEDP in the palliative treatment of bone metastases*. *Cancer Biother Radiopharm* 2000;15(3):261-5.
- Linden YM van der, Lok JJ, Steenland E, et al. Single fraction radiotherapy is efficacious: a further analysis of the Dutch Bone Metastasis Study controlling for the influence of retreatment. *Int J Radiat Oncol Biol Phys* 2004;59:528-37.
- Linden, YM van der, Steenland E, van Houwelingen HC, et al. Patients with a favourable prognosis are equally palliated with single and multiple fraction radiotherapy: results on survival in the Dutch Bone Metastasis Study. *Radiother Oncol* 2006;78:245-53.
- Manni A, Bartholomew M, Caplan R, et al. Androgen priming and chemotherapy in advanced prostate cancer: evaluation of determinants of clinical outcome. *J Clin Oncol* 1988, 9:1456-66.
- Meeuse JJ, van der Linden YM, van Tienhoven G, et al. Efficacy of radiotherapy for painful bone metastases during the last 12 weeks of life: results from the Dutch Bone Metastasis Study. *Cancer* 2010;116:2716-25.
- Mottet N, Bastian PJ, Bellmunt J, et al. Guidelines on prostate cancer. European Association of Urology 2014.

- Palmedo H, Manka-Waluch A, Albers P, et al. Repeated bone-targeted therapy for hormone-refractory prostate carcinoma: randomized phase III trial with the new, high-energy radiopharmaceutical rhenium-188 hydroxyethylidenediphosphonate. *J Clin Oncol* 2003;21:2869-75.
- Parker C, Nilsson S, Heinrich D, et al. Alpha emitter radium-223 and survival in metastatic prostate cancer. *N Engl J Med* 2013;369:213-23.
- Patchell RA, Tibbs PA, Regine WF, et al. *Direct decompressive surgical resection in the treatment of spinal cord compression caused by metastatic cancer: a randomized trial*. Lancet, 2005 Aug 20-26; 366(9486): 643-648.
- Petrylak DP, Tangen CM, Hussain MHA, et al. Docetaxel and estramustine compared with mitoxantrone and prednisone for advanced refractory prostate cancer. *N Engl J Med* 2004, 351:1513-20.
- Petrylak DP, Tangen CM, Hussain MHA, et al. Docetaxel and estramustine compared with mitoxantrone and prednisone for advanced refractory prostate cancer. *N Engl J Med* 2004, 351:1513-20.
- Rades D, Heidenreich F, Karstens JH. Final results of a prospective study of the prognostic value of the time to develop motor deficits before irradiation in metastatic spinal cord compression. *Int J Radiat Oncol Biol Phys* 2002;53:975-9.
- Rathkopf DE, Smith MR, de Bono JS, et al. Updated interim efficacy analysis and long-term safety of abiraterone acetate in metastatic castration-resistant prostate cancer patients without prior chemotherapy (COU-AA-302). *Eur Urol* 2014;66:815-25.
- Roqué I Fiquols M, Martinez-Zapata MJ, Scott-Brown, et al. Radioisotopes for metastatic bone pain. *Cochrane Database Syst Rev* 2011 Jul 6;(7).
- Ryan CJ, Smith MR, de Bono JS, et al. Abiraterone in metastatic prostate cancer without previous chemotherapy. *N Engl J Med* 2013;368:138-48.
- Ryan CJ, Smith MR, Fizazi K, et al. Abiraterone acetate plus prednisone versus placebo plus prednisone in chemotherapy-naïve men with metastatic castration-resistant prostate cancer (COU-AA-302): final overall survival analysis of a randomized, double-blind, placebo controlled phase 3 study. *Lancet Oncol* 2015;16:152-160.
- Sartor AO, Tangen CM, Hussain MHA, et al. Antiandrogen withdrawal in castrate-refractory prostate cancer. A Southwest Oncology Group Trial (SWOG 9426). *Cancer* Jun 2008, 112: 2393-2400.
- Scher HI, Fizazi K, Saad F, et al. Increased survival with enzalutamide in prostate cancer after chemotherapy. *N Engl J Med*. 2012; 367:1187-97.
- Smith MR, Sweeney CJ, Corn PG, et al. Cabozantinib in chemotherapy-pretreated metastatic castration-resistant prostate cancer: results of a phase II nonrandomized expansion study. *J Clin Oncol* 2014;32(30):3391-9.
- Steenland E, Leer JW, van Houwelingen H, et al. The effect of a single fraction compared to multiple fractions on painful bone metastases: a global analysis of the Dutch Bone Metastasis Study. *Radiother Oncol* 1999;52:101-9.
- Sweeney C, Chen YH, Carducci MA, et al. Impact on overall survival (OS) with chemohormonal therapy versus hormonal therapy for hormone sensitive newly metastatic prostate cancer (mPrCa): An ECOG-led phase III randomized trial. *J Clin Oncol* 32:5s, 2014 (suppl; abstr LBA2).
- Tannock IF, de Wit R, Berry WR, et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer. *N Engl J Med* 2004, 351:1502-12.
- Westhoff PG, de Graeff A, Reyners AK, et al. Effect of age on response to palliative radiotherapy and quality of life in patients with painful bone metastases. *Radiother Oncol* 2014;111:264-9.

Deze nascholing is mogelijk gemaakt door een unrestricted educational grant van Sanofi