

Literatura ACTA MEDICINAE 7–8/2017 Onkologie | Hematoonkologie

- 3 **Biologická odlišnost chování nádorů prostaty – záhady v léčbě prostatického karcinomu**
prof. MUDr. Jindřich Fínek, Ph.D. Onkologická a radioterapeutická klinika FN a LF UK, Plzeň
- 3 **Moderní léčba nemalobuněčného plicního karcinomu**
MUDr. Martin Svatoň | prof. MUDr. Miloš Pešek, CSc. Klinika pneumologie a ftizeologie, FN a LF UK, Plzeň
- 3 **Sekvenční léčba ALK inhibitory**
MUDr. Leona Koubková Pneumologická klinika 2. LF UK a FN Motol, Praha
- 4 **Dlouhodobá léčebná odpověď na crizotinib u pacientky s adenokarcinomem plic – kazuistika**
MUDr. Renata Jirásková | MUDr. Ilona Roušalová, Ph. D. Klinika tuberkulózy a respiračních nemocí 1. LF UK a VFN, Praha, Onkologická klinika 1. LF UK a VFN, Praha
- 4 **Léčba pacientek s metastatickým HR+/HER2– karcinomem prsu**
MUDr. Tomáš Svoboda, Ph.D. Onkologická a radioterapeutická klinika, FN Plzeň
- 4 **Imunoterapie renálního karcinomu**
doc. MUDr. Tomáš Büchler, Ph.D. Onkologická klinika 1. LF UK a Thomayerovy nemocnice, Praha
- 5 **Pazopanib v léčbě mladšího pacienta s metastatickým renálním karcinomem – kazuistika a výstupy pro praxi**
MUDr. Alexandr Poprach, Ph.D. Klinika komplexní onkologické péče MOÚ a LF MU, Brno
MUDr. Eva Němcová Oddělení radiologie MOÚ, Brno
MUDr. Radek Lakomý, Ph.D. Klinika komplexní onkologické péče MOÚ a LF MU, Brno
- 5 **Současné možnosti léčby karcinomu pankreatu**
MUDr. Petr Karásek Klinika komplexní onkologické péče, MOÚ, Brno
- 6 **Aktuální možnosti léčby metastatického kolorektálního karcinomu**
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- 6 **Lenvatinib v léčbě radiorefrakterního papilárního karcinomu štítné žlázy**
MUDr. Kateřina Kopečková 2. LF UK, Onkologická klinika FN v Motole, Praha
- 6 **Melanom – současné a budoucí trendy léčby**
MUDr. Ivana Krajsová, MBA Dermatovenerologická klinika 1. LF UK a VFN, Praha
- 6 **Imunoterapie nádorů močového měchýře, respektive uroteliálních nádorů**
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- 7 **Effentora v léčbě průlomové bolesti**
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- 7 **Chemoterapie v léčbě metastatického adenokarcinomu žaludku a gastroezofageální junkce**
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- 7 **Diagnostika a léčba průlomové bolesti**
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- 8 **Léčba onkologické bolesti silnými opioidy**
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- 8 **Současný algoritmus léčby nemocných s mnohočetným myelomem – kam kráčí?**
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- 8 **Nové možnosti v léčbě myelodysplastického syndromu**
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- 9 **Hodgkinův syndrom – současný stav léčby**
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- 9 **Nové léčebné postupy u chronické lymfocytární leukemie**
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- 10 **Alogenní transplantace u starších nemocných**
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- 10 **Paliativní péče v hematoonkologii**
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- 10 **Léčba chronické lymfocytární leukemie u pacientů s komorbiditami – kazuistika**
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- 10 **Posakonazol – tři lékové formy v klinické praxi**
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- 11 **Inotuzumab ozogamicin v léčbě akutní lymfoblastické leukemie dospělých**
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- 11 **Sekundární imunodeficit při chronické lymfocytární leukemii a mnohočetném myelomu**
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- 11 **Biosimilární rituximab – GP2013 – lékový profil**
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- 12 **Daratumumab – monoklonální protilátka v léčbě mnohočetného myelomu v kombinovaných režimech**
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Biologická odlišnost chování nádorů prostaty – záhady v léčbě prostatického karcinomu

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- 1 Kantoff, P. W. – Higano, C. S. – Shore, N. D., et al.: Sipuleucel-T immunotherapy for castration-resistant prostate cancer. *N Engl J Med*, 2010, 363, s. 411–422.
- 2 Scher, H. I. – Fizazi, K. – Saad, F., et al.: Increased survival with enzalutamide in prostate cancer after chemotherapy. *N Engl J Med*, 2012, 367, s. 1187–1197.
- 3 Singh, B. H. – Gulley, J. L.: Therapeutic vaccines as a promising treatment modality against prostate cancer: rationale and recent advances. *Ther Adv Vaccines*, 2014, 2, s. 137–148.
- 4 Sfanos, K. S. – Bruno, R. C. – Meeker, A. K., et al.: Human prostate-infiltrating CD8+ T lymphocytes are oligoclonal and PD-1+. *Prostate*, 2009, 69, s. 1694–1703.
- 5 Genitsen, W. R. – Sharma, P.: Current and emerging treatment options for castration-resistant prostate cancer: a focus on immunotherapy. *J Clin Immunol*, 2012, 32, s. 25–35.
- 6 Gannon, P. O. – Poisson, A. O. – Delvoe, N., et al.: Characterization of the intra-prostatic immune cell infiltration in androgen-deprived prostate cancer patients. *J Immunol Methods*, 2009, 348, s. 9–17.
- 7 May, K. F. Jr. – Gulley, J. L. – Drake, C. G., et al.: Prostate cancer immunotherapy. *Clin Cancer Res*, 2011, 17, s. 5233–5238.
- 8 Cha, E. – Small, E. J.: Is there a role for immune checkpoint blockade with ipilimumab in prostate cancer? *Cancer Med*, 2013, 2, s. 243–252.
- 9 Baxevanis, C. N. – Papamichail, M. – Perez, S.: Prostate cancer vaccines: the long road to clinical application. *Cancer Immunol Immunother*, 2015, 64, s. 401–408.
- 10 Rini, B. I.: Technology evaluation: APC-8015, Dendreon. *Curr Opin Mol Ther*, 2002, 4, s. 76–79.
- 11 Schellhammer, P. F. – Chodak, G. – Whitmore, J. B., et al.: Lower baseline prostate-specific antigen is associated with a great overall survival benefit from sipuleucel-T in the immunotherapy for prostate adenocarcinoma treatment (IMPACT) trial. *Urology*, 2013, 81, s. 1297–1302.
- 12 Noguchi, M. – Kobayashi K. – Suetsugu, N., et al.: Induction of cellular and humoral immuneresponses to tumor cells and peptides in HLA-A24 positive hormone-refractory prostate cancer patients by peptide vaccination. *Prostate*, 2003, 57, s. 80–92.
- 13 Small, E. J. – Schellhammer, P. F. – Higano, C. S., et al.: Placebo controlled Phase III trial of immunologic therapy with sipuleucel-T (APC8015) in patients with metastatic, asymptomatic hormone refractory prostate cancer. *J Clin Oncol*, 2006, 24, s. 3089–3094.
- 14 Higano, C. S. – Schellhammer, O. F. – Small, E. J., et al.: Integrated data from 2 randomized, double-blind, placebo-controlled Phase 3 trial so factive cellular immunotherapy with sipuleucel-T in advanced prostate cancer. *Cancer*, 2009, 115, s. 3670–3679.
- 15 Fong, L. – Weinberg, V. K. – Corman, J. M., et al.: Immune responses in prostate tumor tissue following neoadjuvant sipuleucel-T in patients with localized prostate cancer. *J Clin Oncol*, 2012, 30, suppl. 5, abstrakt 181.
- 16 Garcia, J. A.: Sipuleucel-T in patients with metastatic castration-resistant prostate cancer: an insight for oncologists. *Ther Adv Med Oncol*, 2011, 3, s. 101–108.
- 17 Beer, T. M. – Kwon, E. D. – Drake, Ch. G.: Randomized, double-blind, phase III trial of ipilimumab versus placebo in asymptomatic or minimally symptomatic patients with metastatic chemotherapy-naive castration-resistant prostate cancer. *J Clin Oncol*, 2017, 35, s. 40–47.
- 18 Sternberg, C. – Armstrong, A. – Pili, R.: Randomized, double-blind, placebo-controlled phase III study of tasquinimod in men with metastatic castration-resistant prostate cancer. *J Clin Oncol*, 2016, 34, s. 2636–2643.
- 19 Fakhrejahani, F. – Madan, R. A. – Dahut, W. L., et al.: Avelumab in metastatic castration-resistant prostate cancer (mCRPC). ASCO 2017, poster 5037, dostupné z: <http://meetinglibrary.asco.org/record/146059/abstract>, vyhledáno 30. 8. 2017.

Moderní léčba nemalobuněčného plicního karcinomu

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- 1 Analýzy SVOD – dostupné z <http://www.svod.cz/?sec=analyzy>.
- 2 Kolek, V.: *Doporučené postupy v pneumologii*. Praha, Maxdorf, 2016. Jessenius.
- 3 NCCN guidelines, dostupné z www.nccn.org.
- 4 Vansteenkiste, J. – Crinò, L. – Dooms, C., et al.: 2nd ESMO Consensus Conference on Lung Cancer: early-stage non-small-cell lung cancer consensus on diagnosis, treatment and follow-up. *Ann Oncol*, 2014, 25, s. 1462–1474.
- 5 Lim, E. – Baldwin, D. – Beckles, M., et al.: Guidelines on the radical management of patients with lung cancer. *Thorax*, 2010, 65, suppl. 3, s. iii1–27.
- 6 Eberhardt, W. E. – De Ruysscher, D. – Weder, W., et al.: 2nd ESMO Consensus Conference in Lung Cancer: locally advanced stage III non-small-cell lung cancer. *Ann Oncol*, 2015, 26, s. 1573–1588.
- 7 Giap, H. – Roda, D. – Giap, F.: Can proton beam therapy be clinically relevant for the management of lung cancer? *Transl Cancer Res*, 2015, 4, s. E3–E15.
- 8 Simone, C. H. B. – Burri, S. H. – Heinzerling, J. H.: Novel radiotherapy approaches for lung cancer: combining radiation therapy with targeted and immunotherapies. *Transl Lung Cancer Res*, 2015, 4, s. 545–552.
- 9 Svatoň, M.: Systémová léčba adenokarcinomu plic. *Onkologie*, 2016, 10, suppl. B, s. B21–B24.
- 10 Novello, S. – Barlesi, F. – Califano, R., et al.: Metastatic non-small-cell lung cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*, 2016, 27, suppl. 5, s. v1–v27.
- 11 Peters, S. – Camidge, D. R. – Shaw, A. T., et al.: Alectinib versus crizotinib in untreated ALK-positive non-small-cell lung cancer. *N Engl J Med*, 2017, Epub před tiskem.
- 12 Interdisciplinární konsenzus prediktivního molekulárněgenetického vyšetřování u NSCLC 2016 – dostupné z: www.pneumologie.cz/upload/1481623430.pdf, vyhledáno 5. 9. 2017.
- 13 Harmonizace IHC vyšetřování exprese PD-L1 u nádorů plic v referenčních laboratořích v České republice – dostupné z: http://www.patologie.info/soubor/standary/28-Konsenzus_FL_k_metodicke_testovani_PD-L1.pdf, vyhledáno 5. 9. 2017.
- 14 Travis, W. D. – Brambilla, E. – Nicholson, A. G., et al.: The 2015 World Health Organization Classification of Lung Tumors: Impact of genetic, clinical and radiologic advances since the 2004 classification. *J Thorac Oncol*, 2015, 10, s. 1243–1260.
- 15 Rami-Porta, R.: *IASLC Staging Manual in Thoracic Oncology*. North Fort Myers, Editorial Rx Press, 2016.

Sekvenční léčba ALK inhibitory

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- 1 Soda, M. – Choi, Y. L. – Enomoto, M., et al.: Identification of the transforming EML4-ALK fusion gene in non-small cell lung cancer. *Nature*, 2007, 448, s. 561–566.
- 2 Katayama, R. V. – Shaw, A. T. – Khan, T. M., et al.: Mechanisms of acquired crizotinib resistance in ALK-rearranged lung cancers. *Sci Transl Med*, 2012, 4, 120ra17.
- 3 Doebele, R. C. – Pilling, A. B. – Aisner, D. L., et al.: Mechanisms of resistance to crizotinib in patients with ALK gene rearranged non-small cell lung cancer. *Clin Cancer Res*, 2012, 18, s. 1472–1482.
- 4 Gainor, J. F. – Dardaei, L. – Yoda, S., et al.: Molecular mechanisms of resistance to first- and second-generation ALK inhibitors in ALK-rearranged lung cancer. *Cancer Discov*, 2016, 6, s. 1118–1133.
- 5 Choi, Y. L. – Soda, M. – Yamashita, Y., et al.: ALK Lung Cancer Study Group: EML4-ALK mutations in lung cancer that confer resistance to ALK inhibitors. *N Engl J Med*, 2010, 363, s. 1734–1739.
- 6 Sasaki, T. – Koivunen, J. – Ogino, A., et al.: A novel ALK secondary mutation and EGFR signalling cause resistance to ALK kinase inhibitors. *Cancer Res*, 2011, 71, s. 6051–6060.
- 7 Taniguchi, H. – Takeuchi, S. – Fukuda, K., et al.: Amphiregulin triggered epidermal growth factor receptor activation confers in vivo crizotinib resistance of EML4-ALK lung cancer and circumvention by epidermal growth factor receptor inhibitors. *Cancer Sci*, 2017, 108, s. 53–60.
- 8 Wilson, F. H. – Johannessen, C. M. – Piccioni, F., et al.: A functional landscape of resistance to ALK inhibition in lung cancer. *Cancer Cell*, 2015, 27, s. 397–408.
- 9 Lovly, C. M. – McDonald, N. T. – Chen, H., et al.: Rationale for co-targeting IGF-1R and ALK in ALK fusion-positive lung cancer. *Nat Med*, 2014, 20, s. 1027–1034.
- 10 Friboulet, L. – Li, N. – Katayama, R., et al.: The ALK inhibitor ceritinib overcomes crizotinib resistance in non-small cell lung cancer. *Cancer Discov*, 2014, 4, s. 662–673.
- 11 Kim, D. W. – Mehra, R. – Tan, D. S., et al.: Activity and safety of ceritinib in patients with ALK-rearranged non-small cell lung cancer (ASCEND-1): updated results from the multicentre, open-label, phase 1 trial. *Lancet Oncol*, 2016, 17, s. 452–463.
- 12 Shaw, A. T. – Kim, D. W. – Mehra, R., et al.: Ceritinib in ALK-rearranged non-small cell lung cancer. *N Engl J Med*, 2014, 370, s. 1189–1197.
- 13 Shaw, A. T. – Gandhi, L. – Gadgeel, S., et al.: study investigators: Alectinib in ALK-positive, crizotinib-resistant, non-small cell lung cancer: a single-group, multicentre, phase 2 trial. *Lancet Oncol*, 2016, 17, s. 234–242.
- 14 Ou, S. H. – Ahn, J. S. – De Petris, L., et al.: Alectinib in crizotinib-refractory ALK rearranged non-small-cell lung cancer: a phase II global study. *J Clin Oncol*, 2016, 34, s. 661–668.
- 15 Gettinger, S. N. – Bazhenova, L. A. – Langer, C. J., et al.: Activity and safety of brigatinib in ALK-rearranged non-small cell lung cancer and other malignancies: a single-arm, open-label, phase 1/2 trial. *Lancet Oncol*, 2016, 17, s. 1683–1696.
- 16 Camidge, D. – Tiseo, M. – Ahn, M., et al.: Brigatinib in crizotinib-refractory ALK+ NSCLC: Central assessment and updates from ALTA, a pivotal randomized phase 2 trial. Prezentováno na 17th World Conference on Lung Cancer, prosinec 2016, Vídeň, Rakousko.
- 17 Soria, J. C. – Tan, D. S. – Chiari, R., et al.: First-line ceritinib versus platinum-based chemotherapy in advanced ALK-rearranged non-small cell lung cancer (ASCEND-4): a randomised, open-label, phase 3 study. *Lancet*, Epub 24. 1. 2017.
- 18 Tsang Shaw, A. – Tae Min Kim, T. M. – Crinò, L., et al.: Ceritinib versus chemotherapy in patients with ALK-rearranged non-small-cell lung cancer previously given chemotherapy and crizotinib (ASCEND-5): a randomised, controlled, open-label, phase 3 trial. *Lancet*, 2017, 18, s. 874–886.
- 19 Okihara, H. – Hida, T. – Kondo, M., et al.: Alectinib (ALC) versus crizotinib (CRZ) in ALK-inhibitor naive ALK-positive non-small cell lung cancer (ALK+ NSCLC): Primary results from the J-ALEX study. *J Clin Oncol*, 2016, 34, suppl., abstrakt 9008.
- 20 Tsang Shaw, A. – Ou, S.-H. I. – Felip, E., et al.: Efficacy and safety of lorlatinib in patients (pts) with ALK+ non-small cell lung cancer (NSCLC) with one or more prior ALK tyrosine kinase inhibitor (TKI): A phase I/II study, 2017 ASCO Annual Meeting Abstract No: 9006. *J Clin Oncol*, 2017, 35, suppl., abstrakt 9006.
- 21 Lewis, S. L. – Porceddu, S. – Nakamura, N., et al.: Definitive

- stereotactic body radiotherapy (SBRT) for extracranial oligometastases: an international survey of > 1,000 radiation oncologists. *Am J Clin Oncol*, Epub 2. 2. 2015.
- 22 Weickhardt, A. J. – Scheier, B. – Burke, J. M., et al.: Local ablative therapy of oligoprogressive disease prolongs disease control by tyrosine kinase inhibitors in oncogene-addicted non-small cell lung cancer. *J Thorac Oncol*, 2012, 7, s. 1807–1814.
- 23 Gan, G. N. – Weickhardt, A. J. – Scheier, B., et al.: Stereotactic radiation therapy can safely and durably control sites of extra-central nervous system oligoprogressive disease in anaplastic lymphoma kinase-positive lung cancer patients receiving crizotinib. *Int J Radiat Oncol Biol Phys*, 2014, 88, s. 892–898.
- 24 Soria, J. C., et al.: First-line ceritinib versus platinum-based chemotherapy in advanced ALK-rearranged non-small-cell lung cancer (ASCEND-4): a randomised, open-label, phase 3 study. *Lancet*, 2017, 389, s. 917–929.
- 25 Scagliotti, G. – Kim, T. M. – Crinò, L., et al.: Ceritinib vs chemotherapy (CT) in patients (pts) with advanced anaplastic lymphoma kinase (ALK)-rearranged (ALK+) non-small cell lung cancer (NSCLC) previously treated with CT and crizotinib (CRZ): results from the confirmatory phase 3 ASCEND-5 study. ESMO 2017.
- 26 Kim, D.-W. – Mehra, R. – Tan, D. S. W., et al.: Activity and safety of ceritinib in patients with ALK-rearranged non-small-cell lung cancer (ASCEND-1): updated results from the multicentre, open-label, phase 1 trial. *Lancet Oncol*, 2016, 17, s. 452–463.
- 27 Crinò, L. – Ahn, M.-J. – De Marinis, F., et al.: Multicenter Phase II study of whole-body and intracranial activity with ceritinib in patients with ALK-rearranged non-small-cell lung cancer previously treated with chemotherapy and crizotinib: results from ASCEND-2. *J Clin Oncol*, 2016, 34, s. 2866–2873, DOI: 10.1200/JCO.2015.65.5936.
- 28 Felip, E., et al.: Standard of care and future perspectives in Lung cancer. ASCO Academy 2015, <http://oncologypro.esmo.org>.
- 29 Gadgeel, S. M. – Shaw, A. T. – Govindan, R., et al.: Pooled analysis of CNS response to alectinib in two studies of pretreated patients with ALK-positive non-small-cell lung cancer. *J Clin Oncol*, 2016, 34, s. 4079–4085.
- 30 Gainor, J. F. – Dardaei, L. – Yoda, S., et al.: Molecular mechanisms of resistance to first- and second-generation ALK Inhibitors in ALK-rearranged lung cancer. *Cancer Discov*, 2016, 6, s. 1118–1133.

Dlouhodobá léčebná odpověď na crizotinib u pacientky s adenokarcinomem plic – kazuistika

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- 1 Soda, M. – Choi, Y. L. – Enomoto, M., et al.: Identification of the transforming EML4-ALK fusion gene in non-small-cell lung cancer. *Nature*, 2007, 448, s. 561–566.
- 2 Costa, D. B. – Shaw, A. T. – Ou, S. H., et al.: Clinical experience with crizotinib in patients with advanced ALK rearranged non small cell lung cancer and brain metastases in PROFILE 1005 and PROFILE 1007. *J Thorac Oncol*, 2013, 8, suppl. 2, s. S294–S295.
- 3 Salomon, B. J. – Mok, T. – Kim, D. W., et al.: First-line crizotinib versus chemotherapy in ALK-positive lung cancer. *N Engl J Med*, 2014, 371, s. 2167–2177.
- 4 Shaw, A. T. – Kim, D. W. – Nakagawa, K., et al.: Crizotinib versus chemotherapy in advanced ALK-positive lung cancer. *N Engl J Med*, 2013, 368, s. 2385–2394.

Léčba pacientek s metastatickým HR+/HER2– karcinomem prsu

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- 1 Finn, R. S. – Martin, M., et al.: PALOMA-2: Primary results from a phase III trial of palbociclib with letrozol compared with letrozol alone in postmenopausal women with ER1/HER2- advanced breast cancer. *J Clin Oncol*, 2016, 34, suppl., abstrakt 507.
- 2 Augusto, L. – Sarafan-Vasseur, N., et al.: Prognostic and predictive value of circulating ESR1 mutations in mBC patients progressing under AI treatment. *J Clin Oncol*, 2016, 34, suppl., abstrakt 511.
- 3 Moynahan, M. E. – Sung, P., et al.: Correlation of PIK3CA mutations in cell-free DNA and efficacy of everolimus in mBC. Results from BOLERO-2. *J Clin Oncol*, 2016, 34, suppl., abstrakt 519.
- 4 Dickler, M. N. – Saura, C., et al.: A phase II study of the PIK3CA inhibitor taselisib combined with fulvestrant in patients with HER2- HR+ advanced breast cancer. *J Clin Oncol*, 2016, 34, suppl., abstrakt 520.
- 5 Loibl, S. – Turner, N. C., et al.: Palbociclib in combination with fulvestrant in pre-/perimenopausal women with mBC and prior progression on endocrine therapy – results from PALOMA-3. *J Clin Oncol*, 2016, 34, suppl., abstrakt 524.
- 6 Matter-Walstra, K. – Schwengklens, M., et al.: A cost-effectiveness analysis of palbociclib plus letrozol as first-line treatment for ER+, HER2– metastatic breast cancer. *J Clin Oncol*, 2016, 34, suppl., abstrakt 567.
- 7 Di Leo, A. – Jerusalem, G. – Petruzella, L., et al.: Results of the CONFIRM phase III trial comparing fulvestrant 250 mg with fulvestrant 500 mg in postmenopausal women with estrogen receptor-positive advanced breast cancer. *J Clin Oncol*, 2010, 28, s. 4594–4600.
- 8 Baselga, J. – Campone, M. – Piccart, M., et al.: Everolimus in postmenopausal hormone-receptor-positive advanced breast cancer. *N Engl J Med*, 2012, 366, s. 520–529.
- 9 Hortobagyi, G. N. – Stemmer, S. M. – Burris, H. A., et al.: First-line ribociclib + letrozole for postmenopausal women with HR+, HER2–, advanced breast cancer: First Results From the Phase III MONALEESA-2 Study. ESMO 2016, Kodaň.
- 10 Dickson, M. A. – Schwartz, G. K.: Development of cell-cycle inhibitors for cancer therapy. *Curr Oncol*, 2009, 16, s. 36–43.
- 11 Dickson, M. A. – Schwartz, G. K.: ESMO 2017: MONARCH 3: Abemaciclib as initial therapy improves outcome in endocrine-sensitive advanced breast cancer. Dostupné z: <http://www.ascp.com/News/5804812>, vyhledáno 15. 9. 2017.
- 12 Finn, R. S. – Martin, M. – Rugo, H. S., et al.: Palbociclib and letrozole in advanced breast cancer. *N Engl J Med*, 2016, 375, s. 1925–1936.

Imunoterapie renálního karcinomu

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- 1 Dušek, L. – Mužík, J. – Kubásek, M., et al.: Epidemiologie zhoubných nádorů v České republice [online]. Masarykova univerzita, 2005, dostupné z: <http://www.svod.cz>, vyhledáno 7. 4. 2017.
- 2 Rini, B. I. – Stenzl, A. – Zdrojov, R., et al.: IMA901, a multi-peptide cancer vaccine, plus sunitinib versus sunitinib alone, as first-line therapy for advanced or metastatic renal cell carcinoma (IMPRINT): a multicentre, open-label, randomised, controlled, phase 3 trial. *Lancet Oncol*, 2016, 17, s. 1599–1611.
- 3 Amin, A. – Dudek, A. Z. – Logan, T. F., et al.: Survival with AGS-003, an autologous dendritic cell-based immunotherapy, in combination with sunitinib in unfavorable risk patients with advanced renal cell carcinoma (RCC): Phase 2 study results. *J Immunother Cancer*, 2015, 3, s. 14.
- 4 Yang, J. C. – Hughes, M. – Kammula, U., et al.: Ipilimumab (anti-CTLA4 antibody) causes regression of metastatic renal cell cancer associated with enteritis and hypophysitis. *J Immunother*, 2007, 30, s. 825–830.
- 5 Motzer, R. J. – Escudier, B. – McDermott, D. F., et al.: Nivolumab versus everolimus in advanced renal-cell carcinoma. *N Engl J Med*, 2015, 373, s. 1803–1813.
- 6 Hammers, H. – Plimack, E. R. – Infante, J. R., et al.: Updated results from a phase I study of nivolumab (Nivo) in combination with ipilimumab (ipi) in metastatic renal cell carcinoma (mRCC): The CheckMate 016 study. *An Oncol*, 2016, 27, s. 359–378, 10.1093/annonc/mdw378
- 7 Shrivastava, R. K. – Yu, Z. – Theoret, M. R., et al.: Antiangiogenic agents can increase lymphocyte infiltration into tumor and enhance the effectiveness of adoptive immunotherapy of cancer. *Cancer Res*, 2010, 70, s. 6171–6180.
- 8 Motzer, R. J. – Escudier, B. – McDermott, D. F., et al.: Nivolumab versus everolimus in advanced renal-cell carcinoma. *N Engl J Med*, 2015, 373, s. 1803–1813.
- 9 Choueiri, T. K. – Escudier, B. – Powles, T., et al.: Cabozantinib versus everolimus in advanced renal-cell carcinoma. *N Engl J Med*, 2015, 373, s. 1814–1823.
- 10 Escudier, B. – Porta, C. – Schmidinger, M., et al.: Renal cell carcinoma: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*, 2016, 27, suppl. 5, s. v58–v68.
- 11 Büchler, T. – Melichar, B. – Vrána, D., et al.: Hodnocení klinického benefitu protinádorových léků limitovaných na Komplexní onkologická centra podle metodiky ESMO-MCBS. *Klinická onkologie*, v tisku.

Pazopanib v léčbě mladšího pacienta s metastatickým renálním karcinomem – kazuistika a výstupy pro praxi

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- 1 Motzer, R. J. – Hutson, T. E. – Cella, D., et al.: Pazopanib versus sunitinib in metastatic renal-cell carcinoma. *N Engl J Med*, 2013, 369, s. 722–731.
- 2 Escudier, B. – Porta, C. – Bono, P., et al.: Randomized, controlled, double-blind, cross-over trial assessing treatment preference for pazopanib versus sunitinib in patients with metastatic renal cell carcinoma: PISCES Study. *J Clin Oncol*, 2014, 32, s. 1412–1418.
- 3 Ruiz-Morales, J. M. – Swierkowski, M. – Wells, J. C., et al.: First-line sunitinib versus pazopanib in metastatic renal cell carcinoma: Results from the International Metastatic Renal Cell Carcinoma Database Consortium. *Eur J Cancer*, 2016, 65, s. 102–108.
- 4 Galvis, V. – Chow, S. – Thistlethwaite, F. C., et al.: Clinical practice outcomes of patients treated with pazopanib for metastatic renal cell cancer (mRCC)—6 year experience at a referral centre in Manchester, UK. Prezentováno na: 38th Annual Conference of the European Society for Medical Oncology; 27. 9. – 1. 10. 2013, Amsterdam, Nizozemsko, abstrakt 2763.
- 5 Vogelzang, N. J. – Hackshaw, M. D. 2 – Hutson, T. E., et al.: First-line and sequential use of pazopanib followed by mammalian target of rapamycin inhibitor therapy among patients with advanced renal cell carcinoma in a US Community Oncology Setting. *Clin Genitourin Cancer*, 2015, 13, s. 210–217.
- 6 Pérez-Valderrama, B. – Arranz Arijá, J. A. – Rodríguez Sánchez, A., et al.: Validation of the International Metastatic Renal-Cell Carcinoma Database Consortium (IMDC) prognostic model for first-line pazopanib in metastatic renal carcinoma: the Spanish Oncologic Genitourinary Group (SOGUG) SPAZO study. *Ann Oncol*, 2016, 27, s. 706–711.
- 7 Matrana, M. R. – Bathala, T. – Campbell, M. T., et al.: Outcomes of unselected patients with metastatic clear-cell renal cell carcinoma treated with first-line pazopanib therapy followed by vascular endothelial growth factor receptor tyrosine kinase inhibitors or mammalian target of rapamycin inhibitors: a single institution experience. *BJU Int*, 2016, 118, s. 264–271.
- 8 RENIS [online], dostupné z: <http://renis.registry.cz/index.php?pg=analzy>, vyhledáno 12. 8. 2017.
- 9 Motzer, R. J. – Bacik, J. – Murphy, B. A., et al.: Interferon-alfa as a comparative treatment for clinical trials of new therapies against advanced renal cell carcinoma. *J Clin Oncol*, 2002, 20, s. 289–296.
- 10 Heng, D. Y. – Choueiri, T. K. – Rini, B. I., et al.: Outcomes of patients with metastatic renal cell carcinoma that do not meet eligibility criteria for clinical trials. *Ann Oncol*, 2014, 25, s. 149–154.
- 11 Dušek, L. – Mužík, J. – Kubásek, M., et al.: Epidemiologie zhoubných nádorů v České republice [online]. Masarykova univerzita [2005], dostupné z: <http://www.svod.cz>, vyhledáno 13. 8. 2017, verze 7.0 [2007].
- 12 Sternberg, C. N. – Hawkins, R. E. – Wagstaff, J., et al.: A randomised, double-blind phase III study of pazopanib in patients with advanced and/or metastatic renal cell carcinoma: final overall survival results and safety update. *Eur J Cancer*, 2013, 49, s. 1287–1296.
- 13 Oken, M. M. – Creech, R. H. – Tormey, D. C., et al.: Toxicity and response criteria of the Eastern Cooperative Oncology Group. *Am J Clin Oncol*, 1982, 5, s. 649–655.
- 14 Kim, J. H. – Park, I. – Lee, J. L.: Pazopanib versus sunitinib for the treatment of metastatic renal cell carcinoma patients with poor-risk features. *Cancer Chemother Pharmacol*, 2016, 78, s. 325–332.
- 15 Tannir, N. M. – Porta, C. – Gruenewald, V., et al.: Long-term response and time to response to pazopanib (PAZ) and sunitinib (SUN) in metastatic renal cell carcinoma (mRCC): COMPARZ subanalysis. *J Clin Oncol*, 2017, 35, s. 4572–4572.

Současné možnosti léčby karcinomu pankreatu

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- 1 Ferlay, J. – Partensky, C. – Bray, F.: More deaths from pancreatic cancer than breast cancer in the EU by 2017. *Acta Oncol*, 2016, 55, s. 1158–1160.
- 2 Národní onkologický registr, 010_20140101 [online]. ČR: ÚZIS, 2015. Dostupné z: <https://www.uzis.cz/registry-nzis/nor>, vyhledáno 1. 10. 2015.
- 3 De Angelis, R. – Sant, M. – Coleman, M. P., et al.: Cancer survival in Europe 1999–2007 by country and age: results of EUROCAReE5-a population-based study. *Lancet Oncol*, 2014, 15, s. 23–34.
- 4 Oettle, H. – Neuhaus, P. – Hochhaus, A., et al.: Adjuvant chemotherapy with gemcitabine and long-term outcomes among patients with resected pancreatic cancer: the CONKO-001 randomized trial. *JAMA*, 2013, 310, s. 1473–1481.
- 5 Neoptolemos, J. P. – Stocken, D. D. – Bassi, C., et al.: Adjuvant chemotherapy with fluorouracil plus folinic acid vs gemcitabine following pancreatic cancer resection: a randomized controlled trial. *JAMA*, 2010, 304, s. 1073–1081.
- 6 Katz, M. H. – Fleming, J. B. – Bhoosale, P., et al.: Response of borderline resectable pancreatic cancer to neoadjuvant therapy is not reflected by radiographic indicators. *Cancer*, 2012, 118, s. 5749–5756.
- 7 Gillen, S. – Schuster, T. – Meyer Zum Büschenfelde, C., et al.: Preoperative/neo-adjuvant therapy in pancreatic cancer: a systematic review and meta-analysis of response and resection percentages. *PLoS Med*, 2010, 7, s. e1000267.
- 8 Neoptolemos, J. P. – Stocken, D. D. – Friess, H., et al.: A randomized trial of chemoradiotherapy and chemotherapy after resection of pancreatic cancer. *N Engl J Med*, 2004, 350, s. 1200–1210.
- 9 Oettle, H. – Post, S. – Neuhaus, P., et al.: Adjuvant chemotherapy with gemcitabine vs observation in patients undergoing curative-intent resection of pancreatic cancer: a randomized controlled trial. *JAMA*, 2007, 297, s. 267–277.
- 10 Van Laethem, J. L. – Hammel, P. – Mornex, F., et al.: Adjuvant gemcitabine alone versus gemcitabine-based chemoradiotherapy after curative resection for pancreatic cancer: a randomized EORTC-40013-22012/FFCD-9203/GERCOR phase II study. *J Clin Oncol*, 2010, 28, s. 4450–4456.
- 11 Neoptolemos, J. P. – Dunn, J. A. – Stocken, D. D., et al.: Adjuvant chemoradiotherapy and chemotherapy in resectable pancreatic cancer: a randomised controlled trial. *Lancet*, 2001, 358, s. 1576–1585.
- 12 Neoptolemos, J. P. – Palmer, D. H. – Ghaneh, P., et al.: Comparison of adjuvant gemcitabine and capecitabine with gemcitabine monotherapy in patients with resected pancreatic cancer (ESPAC-4): a multicentre, open-label, randomised, phase 3 trial. *Lancet*, 2017, 389, s. 1011–1024.
- 13 Assifi, M. M. – Lu, X. – Eibl, G., et al.: Neoadjuvant therapy in pancreatic adenocarcinoma: a meta-analysis of phase II trials. *Surgery*, 2011, 150, s. 466–473.
- 14 Gillen, S. – Schuster, T. – Meyer Zum Büschenfelde, C., et al.: Preoperative/neo-adjuvant therapy in pancreatic cancer: a systematic review and meta-analysis of response and resection percentages. *PLoS Med*, 2010, 7, s. e1000267.
- 15 Mokdad, A. A. – Minter, R. M. – Zhu, H., et al.: Neoadjuvant therapy followed by resection versus upfront resection for resectable pancreatic cancer: a propensity score matched analysis. *J Clin Oncol*, 2017, 35, s. 515–522.
- 16 Katz, M. H. – Varadhachary, G. R. – Fleming, J. B., et al.: Serum CA 19-9 as a marker of resectability and survival in patients with potentially resectable pancreatic cancer treated with neoadjuvant chemotherapy. *Ann Surg Oncol*, 2010, 17, s. 1794–1801.
- 17 Heinemann, V. – Haas, M. – Boeck, S.: Neoadjuvant treatment of borderline resectable and non-resectable pancreatic cancer. *Ann Oncol*, 2013, 24, s. 2484–2492.
- 18 Evans, D. B. – George, B. – Tsai, S.: Non-metastatic pancreatic cancer: resectable, borderline resectable, and locally advanced—definitions of increasing importance for the optimal delivery of multimodality therapy. *Ann Surg Oncol*, 2015, 22, s. 3409–3413.
- 19 Hammel, P. – Huguet, F. – van Laethem, J. L., et al.: Effect of chemoradiotherapy vs chemotherapy on survival in patients with locally advanced pancreatic cancer controlled after 4 months of gemcitabine with or without erlotinib: the LAP07 randomized clinical trial. *JAMA*, 2016, 315, s. 1844–1853.
- 20 Sadot, E. – Doussot, A. – O'Reilly, E. M., et al.: FOLFIRINOX induction therapy for stage 3 pancreatic adenocarcinoma. *Ann Surg Oncol*, 2015, 22, s. 3512–3521.
- 21 Huguet, F. – Hajji, C. – Winston, C. B., et al.: Chemotherapy and intensity-modulated radiation therapy for locally advanced pancreatic cancer achieves a high rate of R0 resection. *Acta Oncol*, 2016, s. 1–7.
- 22 Burris, H. A. 3rd. – Moore, M. J. – Andersen, J., et al.: Improvements in survival and clinical benefit with gemcitabine as first-line therapy for patients with advanced pancreas cancer: a randomized trial. *J Clin Oncol*, 1997, 15, s. 2403–2413.
- 23 Arslan, C. – Yalcin, S.: Current and future systemic treatment options in metastatic pancreatic cancer. *J Gastrointest Oncol*, 2014, 5, s. 280–295.
- 24 Berlin, J. D. – Catalano, P. – Thomas, J. P., et al.: Phase III study of gemcitabine in combination with fluorouracil versus gemcitabine alone in patients with advanced pancreatic carcinoma: eastern cooperative oncology group trial E2297. *J Clin Oncol*, 2002, 20, s. 3270–3275.
- 25 Cunningham, D. – Chau, I. – Stocken, D. D., et al.: Phase III randomized comparison of gemcitabine versus gemcitabine plus capecitabine in patients with advanced pancreatic cancer. *J Clin Oncol*, 2009, 27, s. 5513–5518.
- 26 Hidalgo, M.: Pancreatic cancer. *N Engl J Med*, 2010, 362, s. 1605–1617.
- 27 Heinemann, V. – Vehling-Kaiser, U. – Waldschmidt, D., et al.: Gemcitabine plus erlotinib followed by capecitabine versus capecitabine plus erlotinib followed by gemcitabine in advanced pancreatic cancer: final results of a randomised phase 3 trial of the 'arbeitsgemeinschaft internistische onkologie' (AIO-PK0104). *Gut*, 2013, 62, s. 751–759.
- 28 Catenacci, D. V. – Junttila, M. R. – Karrison, T., et al.: Randomized phase IIb study of gemcitabine plus placebo or vismodegib, a hedgehog pathway inhibitor, in patients with metastatic pancreatic cancer. *J Clin Oncol*, 2015, 33, s. 4284–4292.
- 29 Gonçalves, A. – Gilibert, M. – François, E., et al.: BAYPAN study: a double-blind phase III randomized trial comparing gemcitabine plus sorafenib and gemcitabine plus placebo in patients with advanced pancreatic cancer. *Ann Oncol*, 2012, 23, s. 2799–2805.
- 30 Moore, M. J. – Goldstein, D. – Hamm, J., et al.: National Cancer Institute of Canada Clinical Trials Group: Erlotinib plus gemcitabine compared with gemcitabine alone in patients with advanced pancreatic cancer: a phase III trial of the national cancer institute of canada clinical trials group. *J Clin Oncol*, 2007, 25, s. 1960–1966.
- 31 Van Cutsem, E. – Li, C. P. – Nowara, E., et al.: Dose escalation to rash for erlotinib plus gemcitabine for metastatic pancreatic cancer: the phase II RACHEL study. *Br J Cancer*, 2014, 111, s. 2067–2075.
- 32 Conroy, T. – Desseigne, F. – Ychou, M., et al.: Groupe Tumeurs Digestives of Unicancer; PRODIGE Intergroup: FOLFIRINOX versus gemcitabine for metastatic pancreatic cancer. *N Engl J Med*, 2011, 364, s. 1817–1825.
- 33 Gourgou-Bourgade, S. – Bascoul-Mollevis, C. – Desseigne, F., et al.: Impact of FOLFIRINOX compared with gemcitabine on quality of life in patients with metastatic pancreatic cancer: results from the PRODIGE 4/ACCORD 11 randomized trial. *J Clin Oncol*, 2013, 31, s. 23–29.
- 34 Von Hoff, D. D. – Ervin, T. – Arena, F. P., et al.: Increased survival in pancreatic cancer with nab-paclitaxel plus gemcitabine. *N Engl J Med*, 2013, 369, s. 1691–1703.
- 35 Goldstein, D. – El-Maraghi, R. H. – Hammel, P., et al.: Nab-paclitaxel plus gemcitabine for metastatic pancreatic cancer: long-term survival from a phase III trial. *J Natl Cancer Inst*, 2015, pii:duj413.
- 36 Gunturu, K. S. – Yao, X. – Cong, X., et al.: FOLFIRINOX for locally advanced and metastatic pancreatic cancer: single institution retrospective review of efficacy and toxicity. *Med Oncol*, 2013, 30, s. 361.
- 37 Pelzer, U. – Schwaner, I. – Stieler, J., et al.: Best supportive care (BSC) versus oxaliplatin, folinic acid and 5-fluorouracil (OFF) plus BSC in patients for second-line advanced pancreatic cancer: a phase III-study from the German CONKOstudy group. *Eur J Cancer*, 2011, 47, s. 1676–1681.
- 38 Wang-Gillam, A. – Li, C. P. – Bodoky, G., et al.: NAPOLI-1 Study Group:

Nanoliposomal irinotecan with fluorouracil and folinic acid in metastatic pancreatic cancer after previous gemcitabine-based therapy (NAPOLI-1): a global, randomised, open-label, phase 3 trial. *Lancet*, 2016, 387, s. 545–557.

39 **Portal, A. – Pernot, S. – Tougeron, D., et al.:** Nab-paclitaxel plus gemcitabine for metastatic pancreatic adenocarcinoma after Folfox failure: an AGEO prospective multicentre cohort. *Br J Cancer*, 2015, 113, s. 989–995.

40 **Higuera, O., et al.:** Management of pancreatic cancer in the elderly. *World J Gastroenterol*, 2016, 22, s. 764–755.

Aktuální možnosti léčby metastatického kolorektálního karcinomu

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- 1 NCCN Guidelines Colon Cancer Version 2.2017, www.nccn.org.
- 2 *Modrá kniha* COS ČLS JEP, www.linkos.cz.
- 3 **Kopeczková, K. – Buchler, T. – Borticek, Z., et al.:** Regorafenib in the real-life clinical practice: Data from the Czech registry. *Target Oncol*, 2017, 12, s. 89–95.
- 4 **Grothey, A. – Van Cutsem, E. – Sobrero, A., et al.:** Regorafenib monotherapy for previously treated metastatic colorectal cancer (CORRECT): an international, multicentre, randomised, placebo-controlled, phase 3 trial. *Lancet*, 2013, 381, s. 303–312.
- 5 **Mayer, R. J. – Van Cutsem, E. – Falcone, A., et al.:** Randomized trial of TAS-102 for refractory metastatic colorectal cancer. *N Engl J Med*, 2015, 372, s. 1909–1919.
- 6 www.clinicaltrials.gov

Lenvatinib v léčbě radiorefrakterního papilárního karcinomu štítné žlázy

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- 1 **Schlumberger, M. – Tahara, M. – Wirth, L., et al.:** Lenvatinib versus placebo in radioiodine refractory thyroid cancer. *NEJM*, 2015, 327, s. 621–630.
- 2 **Stjepanovic, N. – Capdevila, J.:** Multikinase inhibitors in the treatment of thyroid cancer. Specific role of lenvatinib. *Biologics: Targets and Therapy*, 2014, 8, s. 129–139.
- 3 Dostupné z: <http://www.ema.europa.eu>, vyhledáno 2. 8. 2017.
- 4 **Cabanillas, M. E. – Habra, M. A.:** Lenvatinib: Role in thyroid cancer and other solid tumors. *Cancer Treatment Reviews*, 2016, 42, s. 47–55.
- 5 **Guo, M., et al.:** Overall survival gain with lenvatinib vs. placebo in 131I-refractory differentiated thyroid cancer: An updated analysis. ECCO Videň, září 2015, ústní prezentace.
- 6 **Tuttle, R. M., et al.:** Novel concepts for initiating multitargeted kinase inhibitors in radioactive iodine refractory differentiated thyroid cancer. *Best Practice & Research Clinical Endocrinology & Metabolism*, 2017, dostupné z: <http://dx.doi.org/10.1016/j.beem.2017.04.014>, vyhledáno 2. 8. 2017.

Melanom – současné a budoucí trendy léčby

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- 1 **Pulluri, B. – Kumar, A. – Shaheen, M., et al.:** Tumour microenvironment changes leading to resistance of immune checkpoints inhibitors in metastatic melanoma and strategies to overcome resistance. *Pharmacol Res*, 2017, 123, s. 95–102.
- 2 **Devji, T. – Levine, O. – Neupane, B., et al.:** Systemic therapy for previously untreated advanced BRAF-mutated melanoma: a systematic review and network metaanalysis of randomized clinical trials. *JAMA Oncol*, 2017, 3, s. 366–373.
- 3 **Larkin, J. – Lao, C. D. – Urba, W. J., et al.:** Efficacy and safety of nivolumab in patients with BRAF V600 mutant and BRAF wild-type advanced melanoma: a pooled analysis of 4 clinical trials. *JAMA Oncol*, 2015, 4, s. 433–440.
- 4 **Long, G. V. – Eroglu, Z. – Infante, J., et al.:** Five-year overall survival update from a phase 2, open-label trial of dabrafenib and trametinib in patients with BRAF V600-mutant unresectable or metastatic melanoma. *J Clin Oncol*, 2017, 35, suppl., abstrakt 9505.
- 5 **Schreuer, M. – Jansen, Y. – Planken, S., et al.:** Combination of dabrafenib plus trametinib for BRAF and MEK inhibitor patients with advanced BRAF V600-mutant melanoma: an open-label, single arm, dual-centre, phase 2 clinical trial. *Lancet Oncol*, 2017, 18, s. 464–472.
- 6 **Ascierto, P. A. – Del Vecchio, M. – Robert, C., et al.:** Overall survival and safety results from phase 3 trial of ipilimumab at 3 mg/kg vs 10 mg/kg in patients with metastatic melanoma. *Ann Oncol*, 2016, 27, suppl. 6, s. 379–400.
- 7 **Ivashko, I. N. – Kolesar, J. M.:** Pembrolizumab and nivolumab: PD-1 inhibitors for advanced melanoma. *Am J Health Syst Pharm*, 2016, 73, s. 193–201.
- 8 **Larkin, J. – Chiarion-Sileni, V. – Gonzales, R., et al.:** Combined nivolumab and ipilimumab or monotherapy in untreated melanoma. *N Engl J Med*, 2015, 373, s. 23–34.
- 9 **Carlini, M. S. – Atkinson, V. – Cebon, J. S., et al.:** KEYNOTE-029: efficacy and safety of pembrolizumab plus ipilimumab for advanced melanoma. *J Clin Oncol*, 2017, 35, suppl., abstrakt 9545.
- 10 **Hamid, O. – Hoffner, B. – Gasal, E., et al.:** Oncolytic immunotherapy: unlocking the potential of viruses to help target cancer. *Cancer Immunol Immunother*, 2017, DOI 10.1007/s00262-017-2025-8.
- 11 **Long, G. V. – Dummer, R. – Ribas, A., et al.:** Efficacy analysis of Masterkey 265 phase 1b study of talimogene laherparepvec (T-VEC) and pembrolizumab for unresectable stage IIIb–IV melanoma. *J Clin Oncol*, 2016, 34, abstrakt TPS3108.
- 12 **Trinh, V. A. – Zobniw, C. – Hwu, W. J.:** The efficacy and safety of adjuvant interferon-alfa therapy in the evolving treatment landscape for resected high-risk melanoma. *Expert Opin Drug Saf*, 2017, 16, s. 933–940, doi: 10.1080/14740338.2017.1343301, Epub 30. 7. 2017.
- 13 **Eggermont, A. M. – Chiarion-Sileni, V. – Grob, J., et al.:** Adjuvant ipilimumab versus placebo after complete resection of high-risk stage III melanoma (EORTC 18071): a randomised, double blind, phase 3 trial. *Lancet Oncol*, 2015, 5, s. 522–530.

Imunoterapie nádorů močového měchýře, respektive uroteliálních nádorů

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- 1 **Rosenberg, J. E. – Hoffman-Censits, J. – Powles, T., et al.:** Atezolizumab in patients with locally advanced and metastatic urothelial carcinoma who have progressed following treatment with platinum-based chemotherapy: a single-arm, multicentre, phase 2 trial. *Lancet*, 2016, 387, 1909–1920, doi: 10.1016/S0140-6736(16)00561-4.
- 2 **Balar, A. V. – Galsky, M. D. – Rosenberg, J. E., 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, 389, s. 67–76, doi: 10.1016/S0140-6736(16)32455-452.
- 3 **Apolo, A. B. – Infante, J. R. – 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, s. 2117–2124, doi: 10.1200/JCO.2016.71.6795.
- 4 **Massard, Ch. – Michael, S. – Gordon, M. S., et al.:** Safety and efficacy of durvalumab (MEDI4736), an anti-programmed cell death ligand-1 immune checkpoint inhibitor, in patients with advanced urothelial bladder cancer. *J Clin Oncol*, 2016, 34, s. 3119–3313.
- 5 **Bellmunt, J. – de Wit, R. – Vaughn, D. J. et al.:** Pembrolizumab as second-line therapy for advanced urothelial carcinoma. *NEJM*, 2017, 376, s. 1015–1026, doi: 10.1056/NEJMoa1613683.
- 6 **Balar, A. V. – Bellmunt, J. – O'Donnell, P. H., et al.:** Pembrolizumab (pembro) as first-line therapy for advanced/unresectable or metastatic urothelial cancer: Preliminary results from the phase 2 KEYNOTE-052 study. *An Oncol*, 2016, 27, suppl. 6, LBA32_PR, doi.org/10.1093/annonc/mdw435.25.
- 7 **Balar, A. V. – Castellano, D. E. – O'Donnell, P. H., et al.:** Pembrolizumab as first-line therapy in cisplatin-ineligible advanced urothelial cancer: Results from the total KEYNOTE-052 study population. *J Clin Oncol*,

Effentora v léčbě průlomové bolesti

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- 1 Kabelka, L. – Kozák, J. – Lejško, J. – Sláma, O.: Doporučený postup pro léčbu průlomové bolesti. *Bolest*, 2011, 14, suppl. 1.
- 2 Webster, L. R.: Break through pain in the management of chronic persistent pain syndromes. *Am J Manag Care*, 2008, 14, s. 116–122.
- 3 Dickman, A.: Integrated strategies for the successful management of breakthrough cancer pain. *Curr Opin Support Palliat Care*, 2011, 5, s. 8–14.
- 4 Fortner, B. V. – Okon, T. A. – Portenoy, R. K.: A survey of pain-related hospitalizations, emergency department visits, and physician office visits reported by cancer patients with and without history of break through pain. *J Pain*, 2002, 3, s. 38–44.
- 5 Fricová, J.: Současné možnosti léčby průlomové bolesti u onkologických pacientů. *Remedia*, 2011, 21, 1, s. 14–19.

Chemoterapie v léčbě metastatického adenokarcinomu žaludku a gastroezofageální junkce

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- 1 Kamangar, F. – Dores, G. M. – Anderson, W. F.: Patterns of cancer incidence, mortality, and prevalence across five continents: defining priorities to reduce cancer disparities in different geographic regions of the world. *J Clin Oncol*, 2006, 24, s. 2137–2150.
- 2 Wagner, A. D. – Unverzagt, S. – Grothe, W., et al.: Chemotherapy for advanced gastric cancer. *Cochrane Database Syst Rev*, 2010, CD004064.
- 3 Van Cutsem, E. – Moiseyenko, V. M. – Tjulandin, S., et al.: Phase III study of docetaxel and cisplatin plus fluorouracil compared with cisplatin and fluorouracil as first-line therapy for advanced gastric cancer: a report of the V325 Study Group. *J Clin Oncol*, 2006, 24, s. 4991–4997.
- 4 Ajani, J. A. – Moiseyenko, V. M. – Tjulandin, S., et al.: Clinical benefit with docetaxel plus fluorouracil and cisplatin compared with cisplatin and fluorouracil in a phase III trial of advanced gastric or gastroesophageal cancer adenocarcinoma: the V-325 Study Group. *J Clin Oncol*, 2007, 25, s. 3205–3209.
- 5 Ajani, J. A.: Optimizing docetaxel chemotherapy in patients with cancer of the gastric and gastroesophageal junction: evolution of the docetaxel, cisplatin, and 5-fluorouracil regimen. *Cancer*, 2008, 113, s. 945–955.
- 6 Kang, Y. K. – Kang, W. K. – Shin, D. B., et al.: Capecitabine/cisplatin versus 5-fluorouracil/cisplatin as first-line therapy in patients with advanced gastric cancer: a randomised phase III noninferiority trial. *Ann Oncol*, 2009, 20, s. 666–673.
- 7 Cunningham, D. – Starling, N. – Rao, S., et al.: Capecitabine and oxaliplatin for advanced esophagogastric cancer. *N Engl J Med*, 2008, 358, s. 36–46.
- 8 Ajani, J. A. – Rodriguez, W. – Bodoky, G., et al.: Multicenter phase III comparison of cisplatin/5-FU (CS) with cisplatin/5-FU (CF) as first-line therapy in patients with advanced gastric cancer (FLAGS). Prezentováno na 2009 ASCO Gastrointestinal Cancers Symposium; San Francisco, CA, 15.–17. 1. 2009, abstrakt 8.
- 9 Al-Batran, S. E. – Hartmann, J. T. – Probst, S., et al.: Phase III trial in metastatic gastroesophageal adenocarcinoma with fluorouracil, leucovorin plus either oxaliplatin or cisplatin: a study of the Arbeitsgemeinschaft Internistische Onkologie. *J Clin Oncol*, 2008, 26, s. 1435–1442.
- 10 Dank, M. – Zaluski, J. – Barone, C., et al.: Randomized phase III study comparing irinotecan combined with 5-fluorouracil and folinic acid to cisplatin combined with 5-fluorouracil in chemotherapy naive patients with advanced adenocarcinoma of the stomach or esophagogastric junction. *Ann Oncol*, 2008, 19, s. 1450–1457.
- 11 Koizumi, W. – Narahara, H. – Hara, T., et al.: S-1 plus cisplatin versus S-1 alone for first-line treatment of advanced gastric cancer (SPIRITS trial): a phase III trial. *Lancet Oncol*, 2008, 9, s. 215–221.
- 12 Jin, M. – Lu, H. – Li, J., et al.: Randomized 3-armed phase III study of S-1 monotherapy versus S-1/CDDP (SP) versus 5-FU/CDDP (FP) in patients (pts) with advanced gastric cancer (AGC): SC-101 study. *J Clin Oncol*, 2008, 26, s. 15 (suppl.; abstrakt 4533).
- 13 Lee, J. L. – Kang, H. J. – Kang, Y. K., et al.: Phase I/II study of 3-week combination of S-1 and cisplatin chemotherapy for metastatic or recurrent gastric cancer. *Cancer Chemother Pharmacol*, 2008, 61, s. 837–845.
- 14 Ming-ming, H. – Wen-jing, W. – Feng, W., et al.: S-1-based chemotherapy versus capecitabine-based chemotherapy as first-line treatment for advanced gastric carcinoma: a meta-analysis. *PLoS One*, 2013, 8, e82798, doi:10.1371/journal.pone.0082798.
- 15 Ford, H. E. – Marshall, A. – Bridgewater, J. A., et al.: Docetaxel versus active symptom control for refractory oesophagogastric adenocarcinoma (COUGAR-02): an open-label, phase 3 randomised controlled trial. *Lancet Oncol*, 2014, 15, s. 78–86.
- 16 Kang, J. H. – Lee, S. I., et al.: Salvage chemotherapy for pretreated gastric cancer: a randomized phase III trial comparing chemotherapy plus best supportive care with best supportive care alone. *J Clin Oncol*, 2012, 30, s. 1513–1518.
- 17 Wilke, H. – Muro, K. – Van Cutsem, E., et al.: Ramucicromab plus paclitaxel versus placebo plus paclitaxel in patients with previously treated advanced gastric or gastro-oesophageal junction adenocarcinoma (RAINBOW): a double-blind, randomised phase 3 trial. *Lancet Oncol*, 2014, 15, s. 1224–1235.
- 18 Fuchs, C. S. – Tomasek, J. – Yong, C. J., et al.: Ramucicromab monotherapy for previously treated advanced gastric or gastro-oesophageal junction adenocarcinoma (REGARD): an international, randomised, multicentre, placebo-controlled, phase 3 trial. *Lancet*, 2014, 383, s. 31–39.
- 19 Ghosn, M. – Tabchi, S. – Kourie, H. R., et al.: Metastatic gastric cancer treatment: Second line and beyond. *World J Gastroenterol*, 2016, 22, s. 3069–3077.

Diagnostika a léčba průlomové bolesti

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- 1 Lohre, E. T. – Klepstad, P. – Bennett, M. I., et al.: European Association for Palliative Care Research Network. From „breakthrough“ to „episodic“ cancer pain? A European Association for Palliative Care Research Network expert Delphi survey toward a common terminology and classification of transient cancer pain exacerbations. *J Pain Symptom Manage*, 2016, 51, s. 1013–1019.
- 2 Portenoy, R. K. – Hagen, N. A.: Breakthrough pain: definition, prevalence and characteristics. *Pain*, 1990, 41, s. 273–281.
- 3 Davies, A. N. – Dickman, A. – Reid, C., et al.: Science Committee of the Association for Palliative Medicine of Great Britain and Ireland: The management of cancer-related breakthrough pain: recommendations of a task group of the Science Committee of the Association for Palliative Medicine of Great Britain and Ireland. *Eur J Pain*, 2009, 13, s. 331–338.
- 4 Mercadante, S. – Adile, C. – Torta, R., et al.: Meaningful cut-off pain intensity for breakthrough pain changes in advanced cancer patients. *Curr Med Res Opin*, 2013, 29, s. 93–97.
- 5 Davies, A. – Buchanan, A. – Zeppetella, G., et al.: Breakthrough cancer pain: an observational study of 1000 European oncology patients. *J Pain Symptom Manage*, 2013, 46, s. 619–628.
- 6 Mercadante, S., et al.: Relations hip between background cancer pain, breakthrough pain, and analgesic treatment: a preliminary study for a better interpretation of epidemiological and clinical studies. *Curr Med Res Opin*, 2013, 29, s. 667–671.
- 7 Mercadante, S., et al.: Optimization of opioid therapy for preventing incident pain associated with bone metastases. *J Pain Symptom Manage*, 2004, s. 505–510.
- 8 Jandhyala, R. – Fullerton, J. R. – Bennett, M. I.: Efficacy of rapid-onset oral fentanyl formulations vs. oral morphine for cancer related breakthrough pain: a meta-analysis of comparative trials. *J Pain Symptom Manage*, 2013, 46, s. 573–580.
- 9 Mercadante, S. – Prestia, G. – Casuccio, A.: The use of sublingual fentanyl for break through pain by using doses proportional to opioid basal regimen. *Curr Med Res Opin*, 2013, 29, s. 1527–1532.
- 10 Mercadante, S. – Marchetti, P. – Cuomo, A., et al.: IOPS MS Study Group: Breakthrough pain and its treatment: critical review and recommendations of IOPS (Italian Oncologic Pain Survey) expert group. *Support Care Cancer*, 2016, 24, s. 961–968.

Léčba onkologické bolesti silnými opioidy

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- 1 Doležal, T. – Hakl, M. – Kozák, J., et al.: Metodické pokyny pro farmakoterapii nádorové bolesti. *Farmakoterapie*, 2006, 3, s. 281–286.
- 2 Cherny, N.: The management of cancer pain. *Cancer J Clin*, 2000, 50, s. 70–116.
- 3 Vitte, C. – Fleisch, H. – Gunther, H.: Bisphosphonates induced osteoclasts to secrete an inhibitor of osteoclast-mediated resorption. *Endocrinology*, 1996, 137, s. 2324–2333.
- 4 Adam, Z. – Ševčík, P. – Tomáška, M., et al.: *Farmakologická léčba chronické bolesti a patologických osteolytických procesů*. MU Brno, 2000, s. 50.
- 5 Body, J. J.: Bone metastases. In: Klasterky, J. – Schimpff, S. C. – Senn, H. J. (eds): *Handbook of Supportive Care in Cancer*. New York, USA, Marcel Dekker, 1999, s. 453–481.
- 6 Berenson, J. R. – Rosen, L. S. – Howell, A., et al.: Zoledronic acid reduces skeletal-related events in patients with osteolytic metastases. *Cancer*, 2001, 91, s. 1191–1200.
- 7 Kovaříková, J. – Kovařík, J.: Palliativní radioterapie kostních metastáz. *Bolest*, 2003, 6, s. 225–229.
- 8 Kabelka, L. – Kozák, J. – Lejčko, J. – Sláma, O.: Doporučený postup pro léčbu průlomové bolesti. *Bolest*, 2011, 14, suppl. 1.
- 9 Webster, L. R.: Break through pain in the management of chronic persistent pain syndromes. *Am J Manag Care*, 2008, 14, s. 116–122.
- 10 Dickman, A.: Integrated strategies for the successful management of break through cancer pain. *Curr Opin Support Palliat Care*, 2011, 5, s. 8–14.
- 11 Fortner, B. V. – Okon, T. A. – Portenoy, R. K.: A survey of pain-related hospitalizations, emergency department visits, and physician office visits reported by cancer patient with and without history of break through pain. *J Pain*, 2002, 3, s. 38–44.

Současný algoritmus léčby nemocných s mnohočetným myelomem – kam kráčí?

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- 1 Dimopoulos, M. A. – Stewart, A. K. – Masszi, T. – Špička, I. – Oriol, A. – Hájek, R., et al.: Carfilzomib, lenalidomide, and dexamethasone in patients with relapsed multiple myeloma categorised by age: secondary analysis from the phase 3 ASPIRE study. *Br J Haematol*, 2017, 177, s. 404–413.
- 2 Jelínek, T. – Hájek, R.: Monoclonal antibodies – A new era in the treatment of multiple myeloma. *Blood Rev*, 2016, 30, s. 101–110, doi:10.1016/j.blre.2015.08.004.
- 3 Morgan, G. J. – Walker, B. A. – Davies, F. E.: The genetic architecture of multiple myeloma. *Nat Rev Cancer*, 2012, 12, s. 335–348.
- 4 Moreau, P. – San Miguel, J. – Sonneveld, P. – Mateos, M. V. – Zamagni, E. – Avet-Loiseau, H. – Hajek, R., et al.: ESMO Guidelines Committee. Multiple myeloma: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*, 2017, doi:10.1093/annonc/mdx096, Epub před tiskem.
- 5 Paiva, B. – Garcia-Sanz, R. – San Miguel, J. F.: Multiple myeloma minimal residual disease. *Cancer Treat Res*, 2016, 169, s. 103–122.
- 6 Paiva, B. – Cedena, M. T. – Puig, N. – Arana, P. – Vidriales, M. B. – Cordón, L., et al.: Minimal residual disease monitoring and immune profiling in multiple myeloma in elderly patients. *Blood*, 2016, 127, s. 3165–3174.

Nové možnosti v léčbě myelodysplastického syndromu

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- 1 Patel, K. V. – Longo, D. L. – Ershler, W. B., et al.: Haemoglobin concentration and the risk of death in older adults: differences by race/ethnicity in the NHANES III follow-up. *Br J Haematology*, 2009, 145, s. 514–523.
- 2 Artz, A. S.: Anemia and the frail elderly. *Semin Hematol*, 2008, 45, s. 261–266.
- 3 Zakai, N. A. – French, B. – Arnol, A. M., et al.: Hemoglobin decline, function, and mortality in the elderly: the cardiovascular health study. *Am J Hematol*, 2013, 88, s. 5–9.
- 4 Park, S. – Grabar, S. – Kelaidi, C., et al.; for the GFM group (Group Francophone des Myelodysplasies): Predictive factors of response and survival in myelodysplastic syndrome treated with erythropoietin and G-CSF: the GFM experience. *Blood*, 2008, 111, s. 574–582.
- 5 Hellström-Lindberg, E. – Gulbrandsen, N. – Lindberg, G., et al.; Scandinavian MDS Group: A validated decision model for treating the anaemia of myelodysplastic syndromes with erythropoietin + granulocyte colony-stimulating factor: significant effects on quality of life. *Br J Haematol*, 2003, 120, s. 1037–1046.
- 6 Platzbecker, U. – Symeonidis, A. – Oliva, E. N., et al.: ARCADE (20090160): a phase 3 randomized placebo-controlled double-blind trial of darbepoetin alfa in the treatment of anemia in patients with low and intermediate-1 risk myelodysplastic syndromes (MDS). *Haematologica*, 2016, 101, suppl. 1, s. 15, abstrakt S128.
- 7 Fenaux, P. – Santini, V. – Aloe Spiriti, M. A., et al.: Randomized double-blind, placebo-controlled, multicenter study evaluating epoetin alfa versus placebo in anemic patients with IPSS low-int 1 risk MDS. *Haematologica*, 2016, 101, suppl. 1, s. 71, abstrakt S248.
- 8 Kosmider, O. – Passet, M. – Santini, V., et al.: Are somatic mutations predictive of response to erythropoiesis stimulating agents in lower risk Myelodysplastic syndromes? *Haematologica*, 2016, 101, s. e280–e283.
- 9 Castelli, R. – Deliliers, G. L. – Colombo, R., et al.: Biosimilar epoetin in elderly patients with Myelodysplastic syndromes improves anemia, quality of life and brain function. *Ann Hematol*, 2014, 93, s. 1523–1529.
- 10 Haase, D. – Germing, U. – Schanz, J., et al.: New insights into the prognostic impact of the karyotype in MDS and correlation with subtypes: evidence from a core dataset of 2124 patients. *Blood*, 2007, 110, s. 4385–4395.
- 11 List, A. – Kurtin, S. – Roe, D. J., et al.: Efficacy of lenalidomide in myelodysplastic syndromes. *N Engl J Med*, 2005, 352, s. 549–557.
- 12 Fenaux, P. – Giagounidis, A. – Mufti, G., et al.; MDS-004 Lenalidomide del5q Study Group: A randomized phase 3 study of lenalidomide versus placebo in RBC transfusion-dependent patients with Low-/Intermediate-1-risk myelodysplastic syndromes with del5q. *Blood*, 2011, 118, s. 3765–3776.
- 13 Hellström-Lindberg, E. – Giagounidis, A. – Fenaux, P., et al.: Update on the safety and long-term outcomes in lenalidomide-treated patients with red blood cell transfusion-dependent low-/int-1-risk myelodysplastic syndromes and del(5q). *Haematologica*, 2012, 97, suppl. 1, s. 358–359.
- 14 Komrokji, R. S. – List, A. F.: Short and long-term benefits of lenalidomide treatment in patients with low risk del(5q) Myelodysplastic syndromes. *Ann Oncol*, 2016, 27, s. 62–68.
- 15 Jonášová, A. – Červínek, L. – Bělohávková, P., et al.: Lenalidomide treatment in myelodysplastic syndrome with 5q deletion – Czech MDS group experience. *Vnitř Lek*, 2015, 61, s. 1028–1033.
- 16 Santini, V. – Almeida, A. – Giagounidis, A., et al.: Randomized phase III study of lenalidomide versus placebo in RBC transfusion-dependent patients with lower-risk non-del(5q) myelodysplastic syndromes and ineligible for or refractory to erythropoiesis-stimulating agents. *J Clin Oncol*, 2016, 34, s. 2988–2996.
- 17 Lopez-Girona, A. – Mendy, D. – Ito, T., et al.: Cereblon is a direct protein target for immunomodulatory and antiproliferative activities of lenalidomide and pomalidomide. *Leukemia*, 2012, 26, s. 2326–2335.
- 18 Jonasova, A. – Bokorova, R. – Fuchs, O., et al.: High level of full length cereblon mRNA in lower risk myelodysplastic syndromes with isolated 5q deletion is connected with the efficacy of lenalidomide. *Eur J Haematol*, 2015, 95, s. 27–34.
- 19 Toma, A. – Kosmider, O. F. – Chevret, S., et al.: Lenalidomide with or without erythropoietin in transfusion-dependent erythropoiesis-stimulating agent-refractory lower-risk MDS without 5q deletion. *Leukemia*, 2016, 30, s. 897–905.
- 20 Giagounidis, A. – Platzbecker, U. – Germing, U., et al.: Luspatercept treatment leads to long term increases hemoglobin and reduction in transfusion burden in patients with low or intermediate-1 myelodysplastic syndromes (MDS): preliminary results from the phase 2 PACE-MDS extension study. *Blood*, 2015, 126, abstrakt 92.
- 21 Cermak, J. – Jonasova, A. – Vondrakova, J., et al.: A comparative study of deferasirox and deferiprone in the treatment of iron overload in patients with myelodysplastic syndromes. *Leuk Res*, 2013, 37, s. 1612–1615.
- 22 Fenaux, P. – Muus, P. – Kantarjian, H., et al.: Romiplostim monotherapy in thrombocytopenic patients with myelodysplastic syndromes: long-term safety and efficacy. *Br J Haematol*, 2017, doi: 10.1111/bjh.14792.
- 23 Oliva, E. N. – Alati, C. – Santini, V., et al.: Eltrombopag versus placebo for low-risk myelodysplastic syndromes with thrombocytopenia (EQoL-MDS): phase 1 results of a single-blind, randomised, controlled, phase 2 superiority trial. *Lancet Haematol*, 2017, 4, s. e127–e136.
- 24 Silverman, L. R. – Demakos, E. P. – Peterson, B. L., et al.: Randomized controlled trial of azacitidine in patients with the myelodysplastic syndrome: a study of the cancer and leukemia group B. *J Clin Oncol*, 2002, 20, s. 2429–2440.
- 25 Short, N. J. – Garcia-Manero, G. – Montalban Bravo, G.: Low-dose hypomethylating agents (HMAs) are effective in patients with low or intermediate-1 risk Myelodysplastic syndromes: a report on behalf of the MDS Clinical Research Consortium. *Blood*, 2015, 126, s. 94.
- 26 Fenaux, P. – Mufti, G. J. – Hellstrom-Lindberg, E., et al.; International Vidaza High-Risk MDS Survival Study Group: Efficacy of azacitidine compared with that of conventional care regimens in the treatment of higher-risk myelodysplastic syndromes: a randomised, open-label, phase III study. *Lancet Oncol*, 2009, 10, s. 223–232.
- 27 Jonášová, A. – Čermák, J. – Červínek, L., et al.: První zkušenosti České MDS skupiny s terapií 5-azacytidinem u nemocných s myelodysplastickým syndromem s vyšším rizikem (IPSS střední 2 a vysoké riziko), akutní myeloidní leukemií do 30 % myeloblastů a chronickou myelomonocytární leukemií II. *Tranfuse hematologie dnes*, 2013, 19, s. 125–133.
- 28 Sekeres, M. A. – Othus, M. – List, A. F., et al.: Randomized phase II study of azacitidine alone or in combination with lenalidomide or with vorinostat in higher-risk myelodysplastic syndromes and chronic myelomonocytic leukemia: North American Intergroup Study SWOG S1117. *J Clin Oncol*, 2017, JCO2015662510, doi: 10.1200/JCO.2015.66.2510.
- 29 Mittelman, M. – Filanovsky, K. – Ofan, Y., et al.: Israel Myelodysplastic Syndrome Working Group (MDS-WG): Azacitidine-lenalidomide (ViLen) combination yields a high response rate in higher risk

- myelodysplastic syndromes (MDS)-ViLen-01 protocol. *Ann Hematol*, 2016, 95, s. 1811–1818.
- 30 **Boddu, P. – Kantarjian, H. – Garcia-Manero, G., et al.**: The emerging role of immune checkpoint based approaches in AML and MDS. *Leuk Lymphoma*, 2017, s. 1–13, doi: 10.1080/10428194.2017.1344905.
- 31 **Ørskov, A. D. – Treppendahl, M. B. – Skovbo, A.**: Hypomethylation and up-regulation of PD-1 in T cells by azacytidine in MDS/AML patients: A rationale for combined targeting of PD-1 and DNA methylation. *Oncotarget*, 2015, 6, s. 9612–9626.
- 32 **Issa, J. P. – Roboz, P. – Kantarjian, H., et al.**: Safety and tolerability of guadecitabine (SGI-110) in patients with myelodysplastic syndrome and acute myeloid leukaemia: a multicentre, randomised, dose-escalation phase 1 study. *Lancet Oncology*, 2015, 16, s. 1099–1110.
- 33 **Navada, S. C. – Silverman, L. R.**: The safety and efficacy of rigosertib in the treatment of myelodysplastic syndromes. *Expert Rev Anticancer Ther*, 2016, 16, s. 805–810, doi: 10.1080/14737140.2016.1209413, Epub 15. 7. 2016.
- 34 **Garcia-Manero, G. – Fenau, P. – Silverman, L. R., et al.**: ONTIME study investigators: Rigosertib versus best supportive care for patients with high-risk myelodysplastic syndromes after failure of hypomethylating drugs (ONTIME): a randomised, controlled, phase 3 trial. *Lancet Oncol*, 2016, 17, s. 496–508.

Hodgkinův syndrom – současný stav léčby

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- 1 **Kanzler, H. – Kuppers, R. – Hansmann, M. L., et al.**: Hodgkin and Reed-Sternberg cells in Hodgkin's disease represent the outgrowth of a dominant tumor clone derived from (crippled) germinal center B cells. *J Exp Med*, 1996, 184, s. 1495–1505.
- 2 **Swerdlow, S. H. – Campo, E. – Hartus, N. L., et al.**: *WHO classification of tumours of haematopoietic and lymphoid tissues*. IARC, Lyon 2008.
- 3 **Novotary 2011 ČR**. Praha, Ústav zdravotnických informací a statistiky ČR, 2015, s. 90–94.
- 4 **Canellos, G. P. – Rosenberg, S. A. – Friedberg, J. W., et al.**: Treatment of Hodgkin lymphoma: a 50-year perspective. *J Clin Oncol*, 2014, 32, s. 163–168.
- 5 **Kooperativní lymfomová skupina**: *Diagnostické a léčebné postupy u nemocných s maligními lymfomy* – IX. vydání. HK CREDIT, Hradec Králové, 2016.
- 6 **von Tresckow, B. – Plütschow, A. – Fuchs, M., et al.**: Dose-intensification in early unfavorable Hodgkin's lymphoma: final analysis of the German Hodgkin Study Group HD14 trial. *J Clin Oncol*, 2012, 30, s. 907–913.
- 7 **Moskowitz, C. H. – Nademane, A. – Masszi, T., et al.**: Brentuximab vedotin as consolidation therapy after autologous stem-cell transplantation in patients with Hodgkin's lymphoma at risk of relapse or progression (AETHERA): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet*, 2015, 385, s. 1853–1862.
- 8 **Sureda, A. – Canals, C. – Arranz, R., et al.**: Allogeneic stem cell transplantation after reduced intensity conditioning in patients with relapsed or refractory Hodgkin's lymphoma. Results of the HDR-ALLO study – a prospective clinical trial by the Grupo Español de Linfomas/Trasplante de Médula Osea (GEL/TAMO) and the Lymphoma Working Party of the European Group for Blood and Marrow Transplantation. *Haematologica*, 2012, 97, s. 310–317.
- 9 **Chen, R. – Palmer, J. M. – Tsai, N. C., et al.**: Brentuximab vedotin is associated with improved progression-free survival after allogeneic transplantation for Hodgkin lymphoma. *Biol Blood Marrow Transplant*, 2014, 20, s. 1864–1868.
- 10 **Radford, J. – Illidge, T. – Counsell, N., et al.**: Results of a trial of PET-directed therapy for early-stage Hodgkin's lymphoma. *N Engl J Med*, 2015, 372, s. 1598–1607.
- 11 **Raemaekers, J. M. – André, M. P. – Federico, M., et al.**: Omitting radiotherapy in early positron emission tomography-negative stage I/II Hodgkin lymphoma is associated with an increased risk of early relapse: Clinical results of the preplanned interim analysis of the randomized EORTC/LYSA/FIL H10 trial. *J Clin Oncol*, 2014, 32, s. 1188–1194.
- 12 **Gallamini, A. – Patti, C. – Viviani, S., et al.**: Early chemotherapy intensification with BEACOPP in advanced-stage Hodgkin lymphoma patients with a interim-PET positive after two ABVD courses. *Br J Haematol*, 2011, 152, s. 551–560.
- 13 **Casasnovas, O. – Brice, P. – Bouabdallah, R., et al.**: Randomized phase III study comparing an early PET driven treatment de-escalation to a not PET-monitored strategy in patients with advanced stages Hodgkin lymphoma: interim analysis of the AHL2011 Lysa study. *Blood*, 2015, 126, abstrakt 577.
- 14 **Procházka, V. – Proudová, Z. – Papajík, T.**: Brentuximab vedotin v léčbě relabovaného a refrakterního Hodgkinova lymfomu. *Farmakoterapie*, 2015, 10, s. 458–462.
- 15 **Dosio, F. – Brusa, P. – Cattell, L.**: Immunotoxins and anticancer drug conjugate assemblies: the role of the linkage between components. *Toxins* (Basel), 2011, 7, s. 848–883.
- 16 **Dorotina, S. O. – Toki, B. E. – Torgov, M. Y., et al.**: Development of potent monoclonal antibody auristatin conjugates for cancer therapy. *Nat Biotechnol*, 2003, 7, s. 778–784.
- 17 **Hansen, H. P. – Engels, H. M. – Dams, M., et al.**: Protrusion-guided extracellular vesicles mediate CD30 trans-signalling in the microenvironment of Hodgkin's lymphoma. *J Pathol*, 2014, 232, s. 405–414.
- 18 **Adcetris – souhrn údajů o přípravku**, dostupné z: <http://www.sukl.cz/modules/medication/>, vyhledáno 1. 6. 2017.
- 19 **Chen, R. – Gopal, A. K. – Smith, S. E., et al.**: Five-year survival and durability results of brentuximab vedotin in patients with relapsed or refractory Hodgkin lymphoma. *Blood*, 2016, 128, s. 1562–1566.
- 20 **Kumar, A. – Casulo, C. – Yahalom, J., et al.**: Brentuximab vedotin and AVD followed by involved-site radiotherapy in early stage, unfavorable risk Hodgkin lymphoma. *Blood*, 2016, 128, s. 1458–1464.
- 21 **Peter, B. – Eichenauer, D. A. – Plütschow, A., et al.**: Targeted Beacopp variants in patients with newly diagnosed advanced stage classical Hodgkin lymphoma: final analysis of a randomized phase II study. *Blood*, 2015, ASH Annual Meeting Abstracts, 126, s. 518.
- 22 **Green, M. R. – Monti, S. – Rodig, S. J., et al.**: Integrative analysis reveals selective 9p24.1 amplification, increased PD-1 ligand expression, and further induction via JAK2 in nodular sclerosing Hodgkin lymphoma and primary mediastinal large B-cell lymphoma. *Blood*, 2010, 116, s. 3268–3277.
- 23 **Opdivo – souhrn údajů o přípravku**, dostupné z: <http://www.sukl.cz/modules/medication/>, vyhledáno 1. 6. 2017.
- 24 **Ansell, S. M. – Lesokhin, A. M. – Borrello, I., et al.**: PD-1 blockade with nivolumab in relapsed or refractory Hodgkin's lymphoma. *N Engl J Med*, 2015, 372, s. 311–319.
- 25 **Younes, A. – Santoro, A. – Shipp, M., et al.**: Nivolumab for classical Hodgkin's lymphoma after failure of both autologous stem cell transplantation and brentuximab vedotin: A multicentre, multicohort, single arm phase 2 trial. *Lancet Oncol*, 2016, 17, s. 1283–1294.
- 26 **Keytruda – souhrn údajů o přípravku**, dostupné z: <http://www.sukl.cz/modules/medication/>, vyhledáno 30. 5. 2017.
- 27 **Chen, R. – Zinzani, P. L. – Fanale, M. A., et al.**: Phase II study of the efficacy and safety of pembrolizumab for relapsed/refractory classic Hodgkin lymphoma. *J Clin Oncol*, 25. 4. 2017, JCO2016721316, doi: 10.1200/JCO.2016.72.1316, Epub před tiskem.
- 28 **Hofmeister, C. C. – Williams, N. – Zeyer, S., et al.**: A phase 1 study of vorinostat maintenance after autologous transplant in high-risk lymphoma. *Leuk Lymphoma*, 2015, 56, s. 1043–1049.
- 29 **Kirschbaum, M. H. – Goldman, B. H. – Zain, J. M., et al.**: A phase 2 study of vorinostat for treatment of relapsed or refractory Hodgkin lymphoma: Southwest Oncology Group Study S0517. *Leuk Lymphoma*, 2012, 53, s. 259–262.
- 30 **Younes, A. – Sureda, A. – Ben-Yehuda, D., et al.**: Panobinostat in patients with relapsed/refractory Hodgkin's lymphoma after autologous stem-cell transplantation: results of a phase II study. *J Clin Oncol*, 2012, 30, s. 2197–2203.
- 31 **Younes, A. – Oki, Y. – Bociek, R. G., et al.**: Mocetinostat for relapsed classical Hodgkin's lymphoma: an open-label, single-arm, phase 2 trial. *Lancet Oncol*, 2011, 12, s. 1222–1228.
- 32 **Batlevi, C. L. – Kasamon, Y. – Bociek, R. G., et al.**: ENGAGE-501: phase II study of entinostat (SNDX-275) in relapsed and refractory Hodgkin lymphoma. *Haematologica*, 2016, 101, s. 968–975.
- 33 **Johnston, P. B. – Roggerio, J. – Warsi, G., et al.**: Phase 2 study everolimus for relapsed/refractory classical Hodgkin lymphoma. *Haematologica*, 2013, 98, abstrakt 126.
- 34 **Gopal, A. K. – Fanale, M. A. – Moskowitz, C. H., et al.**: Phase II study of idelalisib, a selective inhibitor of PI3K δ , for relapsed/refractory classical Hodgkin lymphoma. *Ann Oncol*, 2017, 28, s. 1057–1063.
- 35 **Moskowitz, A. J. – Hamlin, P. A. Jr. – Perales, M. A., et al.**: Phase II study of bendamustine in relapsed and refractory Hodgkin lymphoma. *J Clin Oncol*, 2013, 31, s. 456–460.
- 36 **Zinzani, P. L. – Vitolo, U. – Viviani, S., et al.**: Safety and efficacy of single-agent bendamustine after failure of brentuximab vedotin in patients with relapsed or refractory Hodgkin's lymphoma: experience with 27 patients. *Clin Lymphoma Myeloma Leuk*, 2015, 15, s. 404–408.
- 37 **Santoro, A. – Mazza, R. – Pulsoni, A., et al.**: Bendamustine in combination with gemcitabine and vinorelbine is an effective regimen as induction chemotherapy before autologous stem-cell transplantation for relapsed or refractory Hodgkin lymphoma: final results of a multicenter phase II study. *J Clin Oncol*, 2016, 34, s. 3293–3299.
- 38 **Cheson, B. D. – Ansell, S. – Schwarz, L., et al.**: Refinement of the Lugano classification lymphoma response criteria in the era of immunomodulatory therapy. *Blood*, 2016, 128, s. 2489–2496.

Nové léčebné postupy u chronické lymfocytární leukemie

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- 1 **Hallek, M., et al.**: Guidelines for the diagnosis and treatment of chronic lymphocytic leukemia: a report from the International Workshop on Chronic Lymphocytic Leukemia updating the National Cancer Institute-Working Group 1996 guidelines. *Blood*, 2008, 111, s. 5446–5456.
- 2 **Hallek, M., et al.**: Addition of rituximab to fludarabine and cyclophosphamide in patients with chronic lymphocytic leukaemia: a randomised, open-label, phase 3 trial. *Lancet*, 2010, 376, s. 1164–1174.
- 3 **Eichhorst, B., et al.**: First-line chemoimmunotherapy with bendamustine and rituximab versus fludarabine, cyclophosphamide, and rituximab in patients with advanced chronic lymphocytic leukaemia (CLL10): an international, open-label, randomised, phase 3, non-inferiority trial. *Lancet Oncol*, 2016, 7, s. 928–942.
- 4 **Goede, V., et al.**: Obinutuzumab plus chlorambucil in patients with CLL and coexisting conditions. *N Engl J Med*, 2014, 370, s. 1101–1110.
- 5 **Hillmen, P., et al.**: Ofatumumab + chlorambucil versus chlorambucil alone in patients with untreated chronic lymphocytic leukemia (CLL): Results of the phase III study Complement 1 (OMB11091). *Blood*, 2013, 122, s. 528.
- 6 **Byrd, J., et al.**: Ibrutinib versus ofatumumab in previously treated chronic lymphoid leukemia. *N Engl J Med*, 2014, 371, s. 213–223.
- 7 **Furman, R. R., et al.**: Idelalisib and rituximab in relapsed chronic lymphocytic leukemia. *N Engl J Med*, 2014, 370, s. 997–1007.
- 8 **Stiglbauer, S., et al.**: Venetoclax in relapsed or refractory chronic lymphocytic leukaemia with 17p deletion: a multicentre, open-label, phase 2 study. *Lancet Oncol*, 2016, 17, s. 768–778.
- 9 **Chanan-Khan, A., et al.**: Ibrutinib combined with bendamustine and rituximab compared with placebo, bendamustine, and rituximab for previously treated chronic lymphocytic leukaemia or small lymphocytic lymphoma (HELIOS): a randomised, double-blind, phase 3 study. *Lancet Oncol*, 2016, 17, s. 200–211.

Alogenní transplantace u starších nemocných

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- 1 Jemal, A. – Siegel, R. – Ward, E., et al.: Cancer statistics, 2009. *CA Cancer J Clin*, 2009, 59, s. 225–249.
- 2 Deek, J. H. – Sandmaier, B. M.: Who is fit for allogeneic transplantation? *Blood*, 2010, 116, s. 4762–4770.
- 3 Horror, M. L. – Maris, M. B. – Strob, R., et al.: Hematopoietic cell transplantation (HCT) – specific comorbidity index: a new tool for risk assessment before allogeneic HCT. *Blood*, 2005, 106, s. 2912–2919.
- 4 ElSawy, M. – Stoper, B. E. – Pulsipher, M. A., et al.: Multi-centre validation of the prognostic value of the haematopoietic cell transplantation – specific comorbidity index among recipient of allogeneic haematopoietic cell transplantation. *Br J Haematol*, 2015, 170, s. 574–583.
- 5 Passweg, J. R. – Baldomero, H. – Bader, P., et al.: Use of haploidentical stem cell transplantation continues to increase: the 2015 European Society for Blood and Marrow Transplant activity survey report. *Bone Marrow Transplantation*, 2017, 53, s. 1–7.
- 6 Rashidi, A. – Ebadi, M. – Colditz, G. A., et al.: Outcomes of allogeneic stem cells transplantation in elderly patients with acute myeloid leukemia: a systemic review and metaanalysis. *Biol Blood Marrow Transplant*, 2016, 22, s. 651–657.
- 7 Heidenreich, S. – Ziagkos, D. – de Vreede, L. C., et al.: Allogeneic stem cell transplantation for patients age ≥ 70 years with myelodysplastic syndrome: A retrospective study of the MDS subcommittee of the chronic malignancies working party of the EBMT. *Biol Blood Marrow Transplant*, 2017, 23, s. 44–52.
- 8 Brunner, A. M. – Haesook, T. K. – Coughlin, E., et al.: Allogeneic hematopoietic stem cell transplantation for hematologic malignancies. *Biol Blood Marrow Transplant*, 2013, 19, s. 1374–1380.
- 9 D'Souza, A. – Zhu, X.: Current uses and outcomes of hematopoietic cell transplantation (HCT): CIBMTR summary slides, 2016. Dostupné z: <http://www.cibmtr.org>.

Paliativní péče v hematoonkologii

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- 1 Temel, J. S. – Greer, J. A. – Muzikansky, A. et al.: Early palliative care for patients with metastatic non-small-cell lung cancer. *N Engl J Med*, 2010, 363, s. 733–742.
- 2 Bruera, E. – Hui, D.: Conceptual models for integrating palliative care at cancer centers. *J Palliat Med*, 2012, 15, s. 1261–1269.
- 3 Le Blanc, T. W.: Addressing end-of-life quality gaps in hematologic cancers: the importance of early concurrent palliative care. *JAMA Intern Med*, 2016, 176, s. 265–266.
- 4 Odejide, O. O. – Salas Coronado, D. Y. – Watts, C. S. et al.: End-of-life care for blood cancers: a series of focus groups with hematologic oncologists. *J Oncol Pract*, 2014, 10, s. e396–e403.
- 5 McGrath, P. – Holewa, H.: Special considerations for haematology patients in relation to end-of-life care: Australian findings. *Eur J Cancer Care (Engl)*, 2007, 16, s. 164–171.
- 6 Manitta, V. J. – Philip, J. A. – Cole-Sinclair, M. F.: Palliative care and the haemato-oncological patient: can we live together? A review of the literature. *J Palliat Med*, 2010, 13, s. 1021–1025.
- 7 LeBlanc, T. W. – El-Jawahri, A.: When and why should patients with hematologic malignancies see a palliative care specialist? *Hematology Am Soc Hematol Educ Program*, 2015, s. 471–478.
- 8 Back, A. L. – Park, E. R. – Greer, J. A. et al.: Clinician roles in early integrated palliative care for patients with advanced cancer: a qualitative study. *J Palliat Med*, 2014, 17, s. 1244–1248.
- 9 Kouba, M. – Zavadova, I. – Vejmelkova, R.: Is it feasible to care for leukemic patients at home at the end of life? EAPC Meeting, Madrid, 2017, abstrakt P01–123.
- 10 Sexauer, A. – Cheng, M. J. – Knight, L.: Patterns of hospice use in patients dying from hematologic malignancies. *J Palliat Med*, 2014, 17, s. 195–199.

Léčba chronické lymfocytární leukemie u pacientů s komorbiditami – kazuistika

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- 1 Niederfellner, G., et al.: Epitope characterization and crystal structure of GA101 provide insights into the molecular basis for type I/II distinction of CD20 antibodies. *Blood*, 2011, 118, s. 358–367.
- 2 Alduaij, W., et al.: Novel type II anti-CD20 monoclonal antibody (GA101) evokes homotypic adhesion and actin-dependent, lysosome-mediated cell death in B-cell malignancies. *Blood*, 2011, 117, s. 4519–4529.
- 3 Mössner, E., et al.: Increasing the efficacy of CD20 antibody therapy through the engineering of a new type II anti-CD20 antibody with enhanced direct and immune effector cell-mediated B-cell cytotoxicity. *Blood*, 2010, 115, s. 4393–4402.
- 4 Herter, S., et al.: B-cell malignancies have demonstrated promising clinical activity. *Blood*, 2010, 116, abstrakt 3925.
- 5 Kwok, M. – Rawstron, A. C. – Varghese, A., et al.: Minimal residual disease is an independent predictor for 10-year progression-free and overall survival in CLL. *Blood*, 3. 10. 2016, publikováno online, DOI 10.1182/blood-2016-05-714162.

Posaconazol – tři lékové formy v klinické praxi

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- 1 Haber, J.: Posaconazole. *Remedia*, 2007, 17, s. 50–60.
- 2 Haber, J.: Nová možnost perorální léčby v antimykotické terapii. *Farmakoterapie*, 2015, 3, s. 310–314.
- 3 Guarascio, A. J. – Slain, D.: Review of the new delayed-release oral tablet and intravenous dosage forms of posaconazole. *Pharmacotherapy*, 2015, 35, s. 208–219.
- 4 Ezzet, F. – Wexler, D. – Courtney, R., et al.: Oral bioavailability of posaconazole in fasted healthy subjects: comparison between three regimens and basis for clinical dosage recommendations. *Clin Pharmacokinet*, 2005, 44, s. 211–220.
- 5 McKeage, K.: Posaconazole: a review of the gastro-resistant tablet and intravenous solution in invasive fungal infections. *Drugs*, 2015, 75, s. 397–406.
- 6 Krishna, G. – Ma, L. – Martinho, M., et al.: A new solid oral tablet formulation of posaconazole: a randomized clinical trial to investigate rising single- and multiple-dose pharmacokinetics and safety in healthy volunteers. *J Antimicrob Chemother*, 2012, 67, s. 2725–2730.
- 7 Kersemakers, W. M. – Dogterom, P. – Xu, J., et al.: Effect of a high-fat meal on the pharmacokinetics of posaconazole 300 mg in a solid oral tablet formulation. *Antimicrob Agents Chemother*, 2015, 59, s. 3385–3389.
- 8 Kersemakers, W. M. – van Iersel, T. – Nassander, U., et al.: Pharmacokinetics and safety study of posaconazole intravenous solution administered peripherally to healthy subjects. *Antimicrob Agents Chemother*, 2015, 59, s. 1246–1251.
- 9 Kraft, W. K. – Chang, P. S. – van Iersel, M. L., et al.: Posaconazole tablet pharmacokinetics: lack of effect of concomitant medications altering gastric pH and gastric motility in healthy subjects. *Antimicrob Agents Chemother*, 2014, 58, s. 4020–4025.
- 10 MSD: SPC – Noxafil 300 mg concentrate for solution for infusion, 2017.
- 11 Morris, A. A. – Mueller, S. W. – Rower, J. E., et al.: Evaluation of sulbutylether-beta-cyclodextrin exposure in a critically ill patient receiving intravenous posaconazole while undergoing continuous venovenous hemofiltration. *Antimicrob Agents Chemother*, 2015, 59, s. 6653–6656.
- 12 Walsh, T. J. – Raad, I. – Patterson, T. F., et al.: Treatment of invasive aspergillosis with posaconazole in patients who are refractory to or intolerant of conventional therapy: an externally controlled trial. *Clin Infect Dis*, 2007, 44, s. 2–12.
- 13 Krishna, G. – Abu Tarif, M. – Xuan, F., et al.: Pharmacokinetics of oral posaconazole in neutropenic patients receiving chemotherapy for acute myelogenous leukemia or myelodysplastic syndrome. *Pharmacotherapy*, 2008, 28, s. 1223–1232.
- 14 Cornely, O. A. – Duarte, R. F. – Haider, S., et al.: Phase 3 pharmacokinetics and safety study of a posaconazole tablet formulation in patients at risk for invasive fungal disease. *J Antimicrob Chemother*, 2016, 71, s. 718–726.
- 15 Duarte, R. F. – Lopez-Jimenez, J. – Cornely, O. A., et al.: Phase 1b study of new posaconazole tablet for prevention of invasive fungal infections in high-risk patients with neutropenia. *Antimicrob Agents Chemother*, 2014, 58, s. 5758–5765.
- 16 Jung, D. S. – Tverdek, F. P. – Kontoyiannis, D. P.: Switching from posaconazole suspension to tablets increases serum drug levels in leukemia patients without clinically relevant hepatotoxicity. *Antimicrob Agents Chemother*, 2014, 58, s. 6993–6995.
- 17 Wiederhold, N. P.: Pharmacokinetics and safety of posaconazole delayed-release tablets for invasive fungal infections. *Clin Pharmacol*, 2016, 8, s. 1–8.
- 18 Dekkers, B. G. – Bakker, M. – van der Elst, K. C., et al.: Therapeutic drug monitoring of posaconazole: an update. *Curr Fungal Infect Rep*, 2016, 10, s. 51–61.
- 19 Cornely, O. A. – Maertens, J. – Winston, D. J., et al.: Posaconazole vs. fluconazole or itraconazole prophylaxis in patients with neutropenia. *N Engl J Med*, 2007, 356, s. 348–359.
- 20 Ullmann, A. J. – Lipton, J. H. – Vesole, D. H., et al.: Posaconazole or fluconazole for prophylaxis in severe graft-versus-host disease. *N Engl J Med*, 2007, 356, s. 335–347.
- 21 Greenberg, R. N. – Mullane, K. – van Burik, J. A., et al.: Posaconazole as salvage therapy for zygomycosis. *Antimicrob Agents Chemother*, 2006, 50, s. 126–133.
- 22 Vazquez, J. A. – Skiest, D. J. – Nieto, L., et al.: A multicenter randomized trial evaluating posaconazole versus fluconazole for the

treatment of oropharyngeal candidiasis in subjects with HIV/AIDS. *Clin Infect Dis*, 2006, 42, s. 1179–1186.

23 **MSD:** A phase 3 randomized study of the efficacy and safety of posaconazole versus voriconazole for the treatment of

invasive aspergillosis in adults and adolescents (phase 3; protocol No. MK-5592-069). 2013.

24 **Tacke, D. – Koehler, P. – Markiefka, B., et al.:** Our 2014 approach to mucormycosis. *Mycoses*, 2014, 57, s. 519–524.

25 **Vehreschild, J. J. – Birtel, A. – Vehreschild, M. J., et al.:** Mucormycosis treated with posaconazole: review of 96 case reports. *Crit Rev Microbiol*, 2013, 39, s. 310–324.

Inotuzumab ozogamicin v léčbě akutní lymfoblastické leukemie dospělých

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- 1 **Faderl, S. – O'Brien, S. – Pui, C.-H., et al.:** Adult acute lymphoblastic leukemia: Concepts and strategies. *Cancer*, 2010, 116, s. 1165–1176.
- 2 **Bassan, R. – Hoelzer, D.:** Modern therapy of acute lymphoblastic leukemia. *J Clin Oncol*, 2011, 29, s. 532–543.
- 3 **Gökbuget, N. – Kneba, M. – Raff, T., et al.:** Adult patients with acute lymphoblastic leukemia and molecular failure display a poor prognosis and are candidates for stem cell transplantation and targeted therapies. *Blood*, 2012, 120, s. 1868–1876.
- 4 **Jabbour, E. – O'Brien, S. – Ravandi, F., et al.:** Monoclonal antibodies in acute lymphoblastic leukemia. *Blood*, 2015, 125, s. 4010–4016.
- 5 **Dijoseph, J. F. – Armellino, D. C. – Boghaert, E. R., et al.:** Antibody-targeted chemotherapy with CMC-544: a CD22-targeted immunoconjugate of calicheamicin for the treatment of B-lymphoid malignancies. *Blood*, 2004, 103, s. 1807–1814.
- 6 **Dijoseph, J. F. – Dougher, M. M. – Armellino, D. C., et al.:** Therapeutic potential of CD22-specific antibody-targeted chemotherapy using inotuzumabozogamicin (CMC-544) for the treatment of acute lymphoblastic leukemia. *Leukemia*, 2007, 21, s. 2240–2245.
- 7 **Bespona.** Souhrn údajů o přípravku.
- 8 **Kantarjian, H. – Thomas, D. – Jorgensen, J., et al.:** Inotuzumab ozogamicin, an anti-CD22-calicheamicin conjugate, for refractory and relapsed acute lymphocytic leukaemia: a phase 2 study. *Lancet Oncol*, 2012, 13, s. 403–411.
- 9 **Kantarjian, H. – Thomas, D. – Jorgensen, J., et al.:** Results of inotuzumabozogamicin, a CD22 monoclonal antibody, in refractory and relapsed acute lymphocytic leukemia. *Cancer*, 2013, 119, s. 2728–2736.
- 10 **Advani, A. S. – Stein, A. S. – Kantarjian, H. M., et al.:** A phase II study of weekly inotuzumab ozogamicin (InO) in adult patients with CD22-positive acute lymphoblastic leukemia (ALL) in second or later salvage. *Blood*, 2014, 124, abstrakt 2255.
- 11 **Jabbour, E. – O'Brien, S. – Thomas, D. A., et al.:** Inotuzumab ozogamicin in combination with low-intensity chemotherapy (mini-hyper-CVD) as salvage therapy for adult patients with refractory/relapse (R/R) acute lymphoblastic leukemia (ALL). *Blood*, 2014, 124, abstrakt 964.
- 12 **Jabbour, E. – O'Brien, S. – Thomas, D. A., et al.:** Inotuzumab ozogamicin in combination with low-intensity chemotherapy (mini-hyper-CVD) as frontline therapy for older patients (≥60 years) with acute lymphoblastic leukemia (ALL). *Blood*, 2014, 124, abstrakt 794.
- 13 **Kantarjian, H. M. – DeAngelo, D. J. – Stelljes, M., et al.:** Inotuzumab ozogamicin versus standard therapy for acute lymphoblastic leukemia. *N Engl J Med*, 2016, 375, s. 740–753.
- 14 **Jabbour, E. J. – Advani, A. S. – Stelljes, M., et al.:** Efficacy and safety of inotuzumab ozogamicin in older patients with relapsed/refractory acute lymphoblastic leukemia enrolled in the global phase 3 randomized controlled INO-VATE trial. *Haematologica*, 2016, 101, abstrakt P167.
- 15 **Kantarjian, H. M. – DeAngelo, D. J. – Advani, A. S., et al.:** Hepatic adverse event profile of inotuzumab ozogamicin in adult patients with relapsed or refractory acute lymphoblastic leukaemia: results from the open-label, randomised, phase 3 INO-VATE study. *Lancet Haematol*, 2017, 4, s. e387–e398.
- 16 **Databáze léků SÚKL.** <http://www.sukl.cz>, vyhledáno 24. 8. 2017.
- 17 **Kantarjian, H. – Steinman, A. – Gökbuget, N., et al.:** Blinatumomab versus chemotherapy for advanced acute lymphoblastic leukemia. *N Engl J Med*, 2017, 376, s. 836–847.
- 18 **Raetz, E. A. – Cairo, M. S. – Borowitz, M. J., et al.:** Re-induction chemotherapy with epratuzumab in relapsed acute lymphoblastic leukemia (ALL): Phase II results from Children's Oncology Group (COG) study ADVL04P2. *Pediatr Blood Cancer*, 2015, 62, s. 1171–1175.
- 19 **Farhadfar, N. – Litzow, M. R.:** New monoclonal antibodies for the treatment of acute lymphoblastic leukemia. *Leuk Res*, 2016, 49, s. 13–21.
- 20 **Reusch, U. – Duell, J. – Ellwanger, K., et al.:** A tetravalent bispecific TandAb (CD19/CD3), AFM11, efficiently recruits T cells for the potent lysis of CD19(+) tumor cells. *MAbs*, 2015, 7, s. 584–604.
- 21 **Luskin, M. R. – DeAngelo, D. J.:** Chimeric antigen receptor therapy in acute lymphoblastic leukemia clinical practice. *Curr Hematol Malig Rep*, 27. 6. 2017, doi: 10.1007/s11899-017-0394-x (Epub před tiskem).

Sekundární imunodeficit při chronické lymfocytární leukemii a mnohočetném myelomu

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- 1 **Fučíková, T.:** *Klinická imunologie v praxi*. Galén, Praha, 1997.
- 2 **Panovská, A. – Doubek, M.:** Chronická lymfatická leukemie – diagnostika a léčba. *Onkologie*, 2013, 7, s. 17–20.
- 3 **Doporučené postupy České skupiny pro chronickou lymfatickou leukemii, sekce České hematologické společnosti ČLS JEP z roku 2016.**
- 4 **Oscier, D. – Dearden, C. – Eren, E., et al.:** Guidelines on the diagnosis, investigation and management of chronic lymphocytic leukemia. *Br J Haematol*, 2012, 159, s. 541–564.
- 5 **Dhalla, F. – Lucas, M. – Schuh, A., et al.:** Antibody deficiency secondary to chronic lymphocytic leukemia. Should patients be treated with prophylactic replacement immunoglobulin? *J Clin Immunol*, 2014, 34, s. 277–282.
- 6 **Aapro, M. S. – Bohlius, J. – Cameron, D. A., et al.:** 2010 updates of EORTC guidelines for the use of granulocyte-colony stimulating factor to reduce the incidence of chemotherapy-induced febrile neutropenia in adult patients with lymphoproliferative disorders and solid tumors. *Eur J Cancer*, 2011, 47, s. 8–32.
- 7 **Blimark, C.:** Multiple myeloma and infections: a population-based study on 9253 multiple myeloma patients. *Haematologica*, 2015, 100, s. 107–113.
- 8 **Seppänen, M.:** Immunoglobulin G treatment of secondary immunodeficiencies in the era of novel therapies. *Clin Exp Immunol*, 2014, 178, s. 10–13.
- 9 **Raanani, P.:** Immunoglobulin prophylaxis in chronic lymphocytic leukemia and multiple myeloma: systematic review and meta-analysis. *Leuk Lymphoma*, 2009, 50, s. 764–772.
- 10 **EMA Privilig SPC**, duben 2008.
- 11 **EMA Hizentra SPC**, duben 2011.

Biosimilární rituximab – GP2013 – lékový profil

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- 1 **McLaughlin, P., et al.:** Rituximab chimeric anti-CD20 monoclonal antibody therapy for relapsed indolent lymphoma: half of patients respond to a four-dose treatment program. *J Clin Oncol*, 1998, 16, s. 2825–2833.
- 2 **Coiffier, B., et al.:** CHOP chemotherapy plus rituximab compared with CHOP alone in elderly patients with diffuse large-B-cell lymphoma. *N Engl J Med*, 2002, 346, s. 235–242.
- 3 **Eichhorst, B. F., et al.:** Fludarabine plus cyclophosphamide versus fludarabine alone in first-line therapy of younger patients with chronic lymphocytic leukemia. *Blood*, 2006, 107, s. 885–891.
- 4 **Visser, J., et al.:** Physicochemical and functional comparability between the proposed biosimilar rituximab GP2013 and originator rituximab. *BioDrugs*, 2013, 27, s. 495–507, doi: 10.1007/s40259-013-0036–33.
- 5 **da Silva, A., et al.:** Target-directed development and preclinical characterization of the proposed biosimilar rituximab GP2013. *Leuk Lymphoma*, 2014, 55, s. 1609–1617, doi: 10.3109/10428194.2013.843090.
- 6 **Jurczak, W., et al.:** Abstrakt 1809 prezentovaný na 58. ASH San Diego, USA, 3.–6. 12. 2016.

Daratumumab – monoklonální protilátka v léčbě mnohočetného myelomu v kombinovaných režimech

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- 1 **Zojer, N. – Kirchbacher, K. – Vesely, M., et al.:** Rituximab treatment provides no clinical benefit in patients with pretreated advanced multiple myeloma. *Leuk Lymphoma*, 2006, 47, s. 1103–1109.
- 2 **Ellis, K. H. – Barber, K. A. – Tutt, A., et al.:** Engineered anti-CD38 monoclonal antibodies for immunotherapy of multiple myeloma. *J Immunol*, 1995, 155, s. 925–937.
- 3 **Lokhorst, H. M. – Plesner, T. – Laubach, J. P., et al.:** Targeting CD38 with daratumumab monotherapy in multiple myeloma. *N Engl J Med*, 2015, 373, s. 1207–1219.
- 4 **Usmani, S. Z. – Weiss, B. M. – Plesner, T., et al.:** Clinical efficacy of daratumumab monotherapy in patients with heavily pretreated relapsed or refractory multiple myeloma. *Blood*, 2016, 128, s. 37–44.
- 5 **Lonial, S. – Weiss, B. M. – Usmani, S. Z., et al.:** Daratumumab monotherapy in patients with treatment-refractory multiple myeloma (SIRIUS): an open-label, randomised, phase 2 trial. *Lancet*, 2016, 387, s. 1551–1560.
- 6 **Palumbo, A. – Chanan-Khan, A. – Weisel, K., et al.;** CASTOR Investigators: Daratumumab, bortezomib, and dexamethasone for multiple myeloma. *N Engl J Med*, 2016, 375, s. 754–766.
- 7 **Dimopoulos, M. A. – Oriol, A. – Nahi, H., et al.;** POLLUX Investigators: Daratumumab, lenalidomide, and dexamethasone for multiple myeloma treated with novel agents: analysis of 1,175 patients. *Blood*, 2011, 117, s. 3025–3031.
- 8 **Jelínek, T. – Kořístka, M. – Čermáková, Z. – Hájek, R.:** Daratumumab – naděje pro myelomové pacienty, výzva pro klinické laboratoře. *Klin Onkol*, 2017, 30, s. 13–19.
- 9 **McCudden, C. R. – Voorhees, P. M. – Hainsworth, S. A., et al.:** Interference of monoclonal antibody therapies with serum protein electrophoresis tests. *Clin Chem*, 2010, 56, s. 1897–1899.
- 10 **Chapuy, C. I. – Nicholson, R. T. – Aguad, M. D., et al.:** Resolving the daratumumab interference with blood compatibility testing. *Transfusion*, 2015, 55, s. 1545–1554.
- 11 **Barlogie, B. – Mitchell, A. – van Rhee, F., et al.:** Curing myeloma at last: defining criteria and providing the evidence. *Blood*, 2014, 124, s. 3043–3051.
- 12 **Mateos, M. V. – Cavo, M. – Jakubowiak, A. J., et al.:** A randomized open-label study of bortezomib, melphalan, and prednisone (VMP) versus daratumumab (DARA) plus VMP in patients with previously untreated multiple myeloma (MM) who are ineligible for high-dose therapy: 54767414MMY3007 (Alcyone). *J Clin Oncol*, 2015, 33, suppl. 15, abstrakt TPS8608.
- 13 **Gay, F. – Larocca, A. – Wijermans, P., et al.:** Complete response correlates with long-term progression-free and overall survival in elderly myeloma treated with novel agents: analysis of 1,175 patients. *Blood*, 2011, 117, s. 3025–3031.
- 14 **Špička, I.:** Daratumumab v monoterapii pacientů s relabujícím či refrakterním mnohočetným myelomem. Komentář k článku. *Farmakoterapie*, 2017, v tisku.
- 15 **Benson, D. M.:** Update in myeloma, ASH 2016, 58th Annual Meeting and Exposition, San Diego, 3.–6. 12. 2016.
- 16 **Lentzsch, S. – Weisel, K. – Mateos, M.-V., et al.:** Daratumumab, bortezomib, and dexamethasone (DVd) versus bortezomib and dexamethasone (Vd) in relapsed or refractory multiple myeloma (RRMM): Efficacy and safety update (CASTOR). Poster prezentován na výročním zasedání American Society of Clinical Oncology (ASCO) ve dnech 2.–6. 6. 2017; Chicago, Illinois. *J Clin Oncol*, 2017, 35, poster 8036.
- 17 **Bahlis, N. J. – Moreau, P. – Nahi, H., et al.:** Daratumumab, lenalidomide, and dexamethasone (DRd) vs lenalidomide and dexamethasone (Rd) in relapsed or refractory multiple myeloma (RRMM): Efficacy and safety update (POLLUX). Poster prezentován na výročním zasedání American Society of Clinical Oncology (ASCO) ve dnech 2.–6. 6. 2017; Chicago, Illinois. *J Clin Oncol*, 2017, 35, poster 8025.