

ACTA MEDICINAE 7/2012 Kompletní literatura

HEMATOLOGIE A HEMATOONKOLOGIE

- 2 Prevence cévní mozkové příhody a embolizačních příhod**
prof. MUDr. Miroslav Penka, CSc. Oddělení klinické hematologie FN Brno
- 2 Lenalidomid v léčbě refrakterního, respektive relabujícího mnohočetného myelomu**
doc. MUDr. Vladimír Maisnar, Ph.D. IV. interní hematologická klinika, FN a LF UK Hradec Králové
- 2 Rituximab – mechanismus účinku u nemocných s B-buněčnými lymfoproliferacemi**
doc. MUDr. Tomáš Papajík, CSc. | MUDr. Vít Procházka, PhD. | MUDr. Zuzana Kapitáňová
Hemato-onkologická klinika FN a LF Univerzity Palackého v Olomouci
- 4 Současná léčba chronické myeloidní leukemie – inhibitory tyrosinkinas**
MUDr. Eduard Cmunt, CSc. I. interní klinika VFN a 1. LF UK v Praze
- 4 Dasatinib v první linii léčby chronické myeloidní leukemie v chronické fázi**
MUDr. Daniela Žáčková Interní hematologická a onkologická klinika, FN a MU Brno
- 5 Postavení klofarabinu v léčbě dospělých pacientů s akutní myeloidní leukemii**
doc. MUDr. Pavel Žák, Ph.D. IV. interní hematologická klinika, FN a LF v Hradci Králové, Univerzita Karlova v Praze
- 6 Pacient s lymfomem a mnohočetným myelomem s nedostatečnou mobilizací krvetvorných buněk – léčba plerixaforem**
MUDr. Zdeněk Koříštek, Ph.D. Separační středisko, Interní hematologická a onkologická klinika FN a MU, Brno
- 7 Léčba imunitní trombocytopenie po selhání kortikoterapie**
doc. MUDr. Tomáš Kozák, PhD. Interní hematologická klinika 3. LF UK v Praze a FN Královské Vinohrady, Praha
- 7 Léčba ofatumumabem při refrakteritě na léčbu fludarabinem a alemtuzumabem**
MUDr. Martin Šimkovič | doc. MUDr. Lukáš Smolej, Ph.D. IV. interní hematologická klinika, FN a LF UK, Hradec Králové
- 8 Abelcet (ABLC) při léčbě závažných invazivních mykóz**
MUDr. Jan Haber, CSc. I. interní klinika – klinika hematologie 1. LF UK a VFN Praha
- 9 Lékový profil – Caduet**
MUDr. Jiří Slíva, Ph.D. Ústavy farmakologie 2. a 3. LF UK, Praha
- 10 Kombinovaná léčba nemocných s mnohočetným myelomem – lenalidomid**
prof. MUDr. Roman Hájek, CSc. | MUDr. Hana Plonková Ústav klinické hematologie FN Ostrava a LF Univerzity Ostrava
- 11 Těžká forma psoriázy a psoriatické artritidy léčená ustekinumabem – kazuistika**
MUDr. Jiří Ettler | MUDr. Spyridon Gkalpaktis, Ph.D. | prof. MUDr. Petr Arenberger, DrSc., MBA Dermatovenerologická klinika 3. LF UK a FN Královské Vinohrady, Praha
- 11 Léčba hypercholesterolemie při selhání monoterapie: význam fixní kombinace simvastatinu s ezetimibem**
MUDr. Jiří Slíva, Ph.D. Ústavy farmakologie 2. a 3. LF UK, Praha
- 11 Nové možnosti léčby kastařně rezistentního karcinomu prostaty**
MUDr. Otakar Čapoun, FEBU Urologická klinika VFN a 1. LF UK, Praha
- 12 Léčba pokročilého melanomu ipilimumabem**
MUDr. Ivana Krajsová Dermatovenerologická klinika VFN a 1. LF UK, Praha
- 12 Nástup genových terapií v zemích Evropské unie**
prof. Ing. Jaroslav Petr, DrSc. Výzkumný ústav živočišné výroby, Praha

Prevence cévní mozkové příhody a embolizačních příhod

prof. MUDr. Miroslav Penka, CSc. Oddělení klinické hematologie FN Brno

- 1 Kvasnička, J.: *Trombofilie a trombotické stavy*. Praha, Grada Avicenum, 2003, s. 13–299.
- 2 Lip, G. Y. – Nieuwlaat, R. – Postere, R., et al.: Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the Euro Heart Survey on Atrial Fibrillation. *Chrest*, 2010, 137, s. 263–272.
- 3 Hylek, E. M. – Evans-Molina, C. – Shea, C., et al.: Major hemorrhage and tolerability of warfarin in the first year of therapy among elderly patients with atrial fibrillation. *Circulation*, 2007, 115, s. 2689–2696.
- 4 Gross, M. – Greenberg, L. A.: *The Salicylates: a critical bibliographic review*. Conn, Hillhouse Press, 1948.
- 5 Ji, X. – Hou, M.: Novel agent for anti-platelet therapy. *Journal of Hematology and Oncology*, 2011, 4 (44), s. 3–7.
- 6 Iyú, D. – Glenn, J. R. – White, A. E. – Fox, S. C. – van Giezen, H. – Nylander, S. – Heptinstall, S.: Mode of action of PY(12) antagonists as inhibitor of platelet function. *Tromb Haemost*, 2011, 105, s. 96–106.
- 7 Polez, J. A. – Kearon, C. – Lee, A. Y.: Deep venous thrombosis, Hematology. *Am Soc Hematol Educ Program*, 2004, s. 439–456.
- 8 Widimský, J. – Malý, J., et al.: *Akutní plicní embolie a žilní trombóza*. Praha, Triton, 2002, s. 7–303.
- 9 Mackman, N.: Triggers, targets and treatment for thrombosis. *Nature*, 2008, 451, s. 914–918.
- 10 Kessler, P.: *Léčba orálními antikoagulantii*. Praha, Orion-yhtymä Oyj, 2002, s. 1–64.
- 11 Gross, P. L. – Weitz, J. I.: New antithrombotic drugs. *Clin Pharmacol Ther*, 2009, 86, s. 139–146.
- 12 Perzborn, E.: Factor Xa inhibitors – New anticoagulants for secondary haemostasis. *Hamostaseologie*, 2009, 29, s. 260–267.
- 13 Gross, P. L. – Weitz, J. I.: New anticoagulants for treatment of venous thromboembolism. *Atheroscler Thromb Vasc Biol*, 2008, 28, s. 380–386.
- 14 Watson, T. – Shantsila, E. – Lip, G. Y.: Mechanisms of thrombogenesis in atrial fibrillation: Virchow's triad revisited. *Lancet*, 2009, 373, s. 155–166.
- 15 Fukuda, T. – Honda, Y. – Kamisato, C. H., et al.: Reversal of anticoagulant effects of edoxaban, an oral, direct factor Xa inhibitor, with haemostatic agents. *Tromb Haemost*, 2012, 107, s. 253–259.
- 16 WHO 2004, dostupné z: http://www.who.int/cardiovascular_diseases/en/cvd_atlas_15_burden_stroke.pdf; 2. Lloyd-Jones, et al.: *Circulation*, 2009; 3. NINDS 2008, dostupné z: <http://www.ninds.nih.gov/disorders/stroke/poststrokerehab.htm#disabilities>.

Lenalidomid v léčbě refrakterního, respektive relabujícího mnohočetného myelomu

doc. MUDr. Vladimír Maisnar, Ph.D. IV. interní hematologická klinika, FN a LF UK Hradec Králové

- 1 Maisnar, V. – Pelcová, J. – Klimeš, D., et al.: RMG – Registr monoklonálních gamapatií. *Oncologie*, 2011, 5, s. 138–140.
- 2 Armoiry, X. – Aulagner, G. – Facon, T.: Lenalidomide in the treatment of multiple myeloma: a review. *J Clin Pharm Ther*, 2008, 33, s. 219–226.
- 3 Celgene corporation. *Summary of Product Characteristics*, 92 stran, poslední aktualizace 5. 12. 2012
- 4 Weber, D. M. – Chen, C. – Niesvizky, R., et al.: Lenalidomide plus Dexamethasone for Relapsed Multiple Myeloma in North America. *N Engl J Med*, 2007, 357, s. 2133–2142.
- 5 Dimopoulos, M. – Spencer, A. – Attal, M., et al.: Lenalidomide plus Dexamethasone for relapsed or refractory multiple myeloma. *N Engl J Med*, 2007, 357, s. 2123–2132.
- 6 Hájek, R. – Adam, Z. – Ščudla, V., et al.: Souhrn doporučení 2012 – Diagnostika a léčba mnohočetného myelomu. *Transfuze Hematol dnes*, 2012, 8, dopl. 1, s. 1–89.
- 7 Palumbo, A. – Hájek, R. – Delforge, M., et al.: Continuous lenalidomide treatment for newly diagnosed multiple myeloma. *N Engl J Med*, 2012, 366, s. 1759–1769.

Rituximab – mechanismus účinku u nemocných s B-buněčnými lymfoproliferacemi

doc. MUDr. Tomáš Papajík, CSc. | MUDr. Vít Procházka, PhD. | MUDr. Zuzana Kapitáňová
Hemato-onkologická klinika FN a LF Univerzity Palackého v Olomouci

- 1 Miller, A. M. S. – Ihorst, G. – Mertelsmann, R. – Engelhardt, M.: Epidemiology of non-Hodgkin's lymphoma (NHL): trends, geographic distribution, and etiology. *Ann Hematol*, 2005, 84, s. 1–12.
- 2 Anderson, K. C. – Bates, M. P. – Slaughenhoupt, B. L., et al.: Expression of human B cell-associated antigens on leukemias and lymphomas: a model of human B cell differentiation. *Blood*, 1984, 63, s. 1424–1433.
- 3 Yarnold, S. – Fell, H. P.: Chimerization of antitumor antibodies via homologous recombination conversion vectors. *Cancer Res*, 1994, 54, s. 506–512.
- 4 Reff, M. E. – Carner, K. – Chambers, K. S., et al.: Depletion of B cells in vivo by a chimeric mouse-human monoclonal antibody to CD20. *Blood*, 1994, 83, s. 435–445.
- 5 Maloney, D. G. – Liles, T. M. – Czerwinski, D. K., et al.: Phase I clinical trial using escalating single-dose infusion of chimeric anti-CD20 monoclonal antibody (IDE-C2B8) in patients with recurrent B-cell lymphoma. *Blood*, 1994, 84, s. 2457–2466.
- 6 Maloney, D. G. – Grillo-López, A. J. – White, C. A., et al.: IDE-C2B8 (Rituximab) anti-CD20 monoclonal antibody therapy in patients with relapsed low-grade non-Hodgkin's lymphoma. *Blood*, 1997, 90, s. 2188–2195.
- 7 McLaughlin, P. – Grillo-López, A. J. – Link, B. K., 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.

- 8 **McLaughlin, P.**: Rituximab: perspective on single agent experience, and future directions in combination trials. *Crit Rev Oncol Hematol*, 2001, 40, s. 3–16.
- 9 **Plosker, G. L. – Figgitt, D. P.**: Rituximab: a review of its use in non-Hodgkin's lymphoma and chronic lymphocytic leukaemia. *Drugs*, 2003, 63, s. 803–843.
- 10 **Keating, G. M.**: Rituximab: a review of its use in chronic lymphocytic leukaemia, low-grade or follicular lymphoma and diffuse large B-cell lymphoma. *Drugs*, 2010, 70, s. 1445–1476.
- 11 **Weiner, G. J.**: Rituximab: mechanism of action. *Semin Hematol*, 2010, 47, s. 115–123.
- 12 **Rezvani, A. R. – Maloney, D. G.**: Rituximab resistance. *Best Pract Res Clin Haematol*, 2011, 24, s. 203–216.
- 13 **Beers, S. A. – Chan, C. H. – French, R. R., et al.**: CD20 as a target for therapeutic type I and II monoclonal antibodies. *Semin Hematol*, 2010, 47, s. 107–114.
- 14 **Venugopal, P. – Sivaraman, S. – Juany, X. K., et al.**: Effects of cytokines on CD20 antigen expression on tumor cells from patients with chronic lymphocytic leukemia. *Leuk Res*, 2000, 24, s. 411–415.
- 15 **Almasri, N. M. – Duque, R. E. – Iturraspe, J., et al.**: Reduced expression of CD20 antigen as a characteristic marker for chronic lymphocytic leukemia. *Am J Hematol*, 1992, 40, s. 259–263.
- 16 **Deans, J. P. – Robbins, S. M. – Polyak, M. J. – Savage, J. A.**: Rapid redistribution of CD20 to a low density detergent-insoluble membrane compartment. *J Biol Chem*, 1998, 273, s. 344–348.
- 17 **Pike, L. J.**: The challenge of lipid rafts. *J Lipid Res*, 2009, 50, s. 323–328.
- 18 **Flieger, D. – Renoth, S. – Beier, I., et al.**: Mechanism of cytotoxicity induced by chimeric mouse human monoclonal antibody IDEC-C2B8 in CD20-expressing lymphoma cell lines. *Cell Immunol*, 2000, 204, s. 55–63.
- 19 **Winiarska, M. – Bil, J. – Wilczek, E., et al.**: Statins impair antitumor effects of rituximab by inducing conformational changes of CD20. *PLoS Med*, 2008, 5, s. 64.
- 20 **Nowakowski, G. S. – Maurer, M. J. – Habermann, T. M., et al.**: Statin use and prognosis in patients with diffuse large B-cell lymphoma and follicular lymphoma in the rituximab era. *J Clin Oncol*, 2010, 28, s. 412–417.
- 21 **Berinstein, N. L. – Grillo-López, A. J. – White, C. A., et al.**: Association of serum Rituximab (IDE-C2B8) concentration and anti-tumor response in the treatment of recurrent low-grade or follicular non-Hodgkin's lymphoma. *Ann Oncol*, 1998, 9, s. 995–1001.
- 22 **Cartron, G. – Blasco, H. – Paintaud, G. – Watier, H. – Le Guellec, C.**: Pharmacokinetics of rituximab and its clinical use: thought for the best use? *Crit Rev Oncol Hematol*, 2007, 62, s. 43–52.
- 23 **Scheidhauer, K. – Wolf, I. – Baumgartl, H. J., et al.**: Biodistribution and kinetics of (131)I-labelled anti-CD20 MAB IDEC-C2B8 (rituximab) in relapsed non-Hodgkin's lymphoma. *Eur J Nucl Med Mol Imaging*, 2002, 29, s. 1276–1282.
- 24 **Igarashi, T. – Kobayashi, Y. – Obuta, M., et al.**: Factors affecting toxicity, response and progression-free survival in relapsed patients with indolent B-cell lymphoma and mantle cell lymphoma treated with rituximab: a Japanese phase II study. *Ann Oncol*, 2002, 13, s. 928–943.
- 25 **Tobinai, K. – Igarashi, T. – Itoh, K., et al.**: Japanese multicenter phase II and pharmacokinetic study of rituximab in relapsed or refractory patients with aggressive B-cell lymphoma. *Ann Oncol*, 2004, 15, s. 821–830.
- 26 **Jäger, U. – Fridrik, M. – Zeitlinger, M., et al.**: Rituximab serum concentrations during immuno-chemotherapy of follicular lymphoma correlate with patient gender, bone marrow infiltration and clinical response. *Haematologica*, 2012, 97, s. 1431–1438.
- 27 **Rubenstein, J. L. – Combs, D. – Rosenberg, J., et al.**: Rituximab therapy for CNS lymphomas: targeting the leptomeningeal compartment. *Blood*, 2003, 101, s. 466–468.
- 28 **Perissinotti, A. J. – Reeves, D. J.**: Role of intrathecal rituximab and trastuzumab in the management of leptomeningeal carcinomatosis. *Ann Pharmacother*, 2010, 44, s. 1633–1640.
- 29 **Cartron, G. – Watier, H. – Golay, J. – Solal-Celigny, P.**: From the bench to the bedside: ways to improve rituximab efficacy. *Blood*, 2004, 104, s. 2635–2642.
- 30 **Byrd, J. C. – Kitada, S. – Flinn, I. W., et al.**: The mechanism of tumor cell clearance by rituximab in vivo in patients with B-cell chronic lymphocytic leukemia: evidence of caspase activation and apoptosis induction. *Blood*, 2002, 99, s. 1038–1043.
- 31 **van der Kolk, L. E. – Evers, L. M. – Omene, C., et al.**: CD20-induced B-cell death can bypass mitochondria and caspase activation. *Leukemia*, 2002, 16, s. 1735–1744.
- 32 **Mounier, N. – Briere, J. – Gisselbrecht, C., et al.**: Rituximab plus CHOP (R-CHOP) overcomes bcl-2-associated resistance to chemotherapy in elderly patients with diffuse large B-cell lymphoma (DLBCL). *Blood*, 2003, 101, s. 4279–4284.
- 33 **Bezombes, C. – Fournié, J. J. – Laurent, G.**: Direct effect of rituximab in B-cell-derived lymphoid neoplasias: mechanism, regulation, and perspectives. *Mol Cancer Res*, 2011, 9, s. 1435–1442.
- 34 **Di Gaetano, N. – Cittera, E. – Nota, R., et al.**: Complement activation determines the therapeutic activity of rituximab in vivo. *J Immunol*, 2003, 171, s. 1581–1587.
- 35 **Uchida, J. – Hamaguchi, Y. – Oliver, J. A., et al.**: The innate mononuclear phagocyte network depletes B lymphocytes through Fc receptor-dependent mechanisms during anti-CD20 antibody immunotherapy. *J Exp Med*, 2004, 199, s. 1659–1669.
- 36 **Manches, O. – Lui, G. – Chaperot, L., et al.**: In vitro mechanisms of action of rituximab on primary non-Hodgkin lymphomas. *Blood*, 2003, 101, s. 949–954.
- 37 **Kennedy, A. D. – Beum, P. V. – Solga, M. D., et al.**: Rituximab infusion promotes rapid complement depletion and acute CD20 loss in chronic lymphocytic leukemia. *J Immunol*, 2004, 172, s. 3280–3288.
- 38 **van der Kolk, L. E. – Grillo-López, A. J. – Baars, J. W., et al.**: Complement activation plays a key role in the side-effects of rituximab treatment. *Br J Haematol*, 2001, 115, s. 807–811.
- 39 **Manches, O. – Lui, G. – Chaperot, L. – Gressin, R., et al.**: In vitro mechanisms of action of rituximab on primary non-Hodgkin lymphomas. *Blood*, 2003, 101, s. 949–954.
- 40 **Koene, H. R. – Kleijer, M. – Algra, J., et al.**: Fc gammaRIIIa-158V/F polymorphism influences the binding of IgG by natural killer cell Fc gammaRIIIa, independently of the Fc gammaRIIIa-48L/R/H phenotype. *Blood*, 1997, 90, s. 1109–1114.
- 41 **Weng, W. K. – Levy, R.**: Two immunoglobulin G fragment C receptor polymorphisms independently predict response to rituximab in patients with follicular lymphoma. *J Clin Oncol*, 2003, 21, s. 3940–3947.
- 42 **Prochazka, V. – Papajík, T. – Gazdová, J., et al.**: FcγRIIIA receptor genotype does not influence an outcome in patients with follicular lymphoma treated with risk-adapted immunochemotherapy. *Neoplasma*, 2011, 58, s. 263–270.
- 43 **Selenko, N. – Maidic, O. – Draxier, S., et al.**: CD20 antibody (C2B8)-induced apoptosis of lymphoma cells promotes phagocytosis by dendritic cells and cross-priming of CD8+ cytotoxic T cells. *Leukemia*, 2001, 15, s. 1619–1626.
- 44 **Shimizu, R. – Kikuchi, J. – Wada, T. – Ozawa, K. – Kano, Y. – Furukawa, Y.**: HDAC inhibitors augment cytotoxic activity of rituximab by upregulating CD20 expression on lymphoma cells. *Leukemia*, 2010, 24, s. 1760–1768.
- 45 **Pro, B. – Leber, B. – Smith, M., et al.**: Phase II multicenter study of oblimersen sodium, a Bcl-2 antisense oligonucleotide, in combination with rituximab in patients with recurrent B-cell non-Hodgkin lymphoma. *Br J Haematol*, 2008, 143, s. 355–360.
- 46 **Zinzani, P. L. – Khuageva, N. K. – Wang, H., et al.**: Bortezomib plus rituximab versus rituximab in patients with high-risk, relapsed, rituximab-naïve or rituximab-sensitive follicular lymphoma: subgroup analysis of a randomized phase 3 trial. *J Hematol Oncol*, 2012, 5, s. 67.
- 47 **Hernandez-Ilizaliturri, F. J. – Jupudy, V. – Reising, S. – Repasky, E. A. – Czuczman, M. S.**: Concurrent administration of granulocyte colony-stimulating factor or granulocyte-monocyte colony-stimulating

factor enhances the biological activity of rituximab in a severe combined immunodeficiency mouse lymphoma model. *Leuk Lymphoma*, 2005, 46, s. 1775–1784.

48 Motta, G. – Cea, M. – Moran, E., et al.: Monoclonal antibodies for non-Hodgkin's lymphoma: state of the art and perspectives. *Clin Dev Immunol*, 2010, doi: 10.1155/2010/428253.

Současná léčba chronické myeloidní leukemie – inhibitory tyrosinkinas

MUDr. Eduard Cmunt, CSc. I. interní klinika VFN a 1. LF UK v Praze

- 1 Quintás-Cardama, A. – Cortes, J.: Molecular biology of bcr-abl1 positive chronic myeloid leukemia. *Blood*, 2009, 113, s. 1619–1630.
- 2 Druker, B. J. – Talpaz, M. – Resta, D. J., et al.: Efficacy and safety of a specific inhibitor of the BCR-ABL tyrosine kinase in chronic myeloid leukemia. *N Engl J Med*, 2001, 344, s. 1034–1037.
- 3 Apperley, J. F. – Part, I.: Mechanisms of resistance to imatinib in chronic myeloid leukaemia. *Lancet Oncol*, 2007, 8, s. 1018–1029.
- 4 O'Brien, S. G. – Guilhot, F. – Larson, R. A., et al.: Imatinib compared with interferon and low-dose Ara-C for newly diagnosed chronic phase chronic myeloid leukemia. *N Engl J Med*, 2003, 348, s. 994–1004.
- 5 O'Brien, S. G. – Guilhot, F. – Goldman, J. M., et al.: International Randomized Study of Interferon Versus ST1571 (IRIS) 7-Year Follow-up: Sustained Survival, Low Rate of Transformation and Increased Rate of Major Molecular Response (MMR) in Patients (pts) with Newly Diagnosed Chronic Myeloid Leukemia in Chronic Phase (CMLCP) Treated with Imatinib (IM). *Blood (ASH Annual Meeting Abstracts)*, 2008, 112, abstrakt 186.
- 6 Noens, L. – van Lierde, M.-A. – De Bock, R., et al.: Prevalence, determinants and outcomes of nonadherence to imatinib therapy in patients with chronic myeloid leukemia: the ADAGIO study. *Blood*, 2009, 113, s. 5401–5411.
- 7 Kantarjian, H. – Talpaz, M. – O'Brien, S., et al.: High dose imatinib mesylate therapy in newly diagnosed Philadelphia chromosome-positive chronic myeloid leukemia. *Blood*, 2004, 103, s. 2873–2878.
- 8 Hughes, T. P. – Branford, S. – White, D. L., et al.: Impact of early dose intensity on cytogenetic and molecular responses in chronic-phase CML patients receiving 600 mg/day of imatinib as initial therapy. *Blood*, 2008, 112, s. 3965–3973.
- 9 Sokal, J. E. – Cox, E. B. – Baccarani, M., et al.: Prognostic discrimination in 'good-risk' chronic granulocytic leukemia. *Blood*, 1984, 63, s. 789–799.
- 10 Kantarjian, H. – Gilda, F. – Wunderle, L., et al.: Nilotinib in imatinib-resistant CML and Philadelphia chromosome-positive ALL. *N Engl J Med*, 2006, 354, s. 2542–2551.
- 11 Saglio, G. – Kin, D.-W. – Issaragrisil, S., et al.: Nilotinib versus imatinib for newly diagnosed chronic myeloid leukemia. *N Eng J Med*, 2010, 362, s. 2251–2259.
- 12 Saglio, G. – LeCoutre, P. – Pasquini, R., et al.: Nilotinib versus imatinib in patients with newly diagnosed Philadelphia chromosome-positive chronic myeloid leukemia in chronic phase: ENESTnd 36-month follow-up. *Blood (ASH Annual Meeting Abstracts)*, 2011, 118, abstrakt 452.
- 13 Talpaz, M. – Shah, N. – Kantarjian, H., et al.: Dasatinib in imatinib resistant Philadelphia chromosome positive leukemias. *N Engl J Med*, 2006, 354, s. 2534–2541.
- 14 Kantarjian, H. – Shah, N. – Cortes, J., et al.: Dasatinib or imatinib in newly diagnosed chronic-phase chronic myeloid leukemia: 2-year follow-up from a randomized phase 3 trial (DASISION). *Blood*, 2012, 119, s. 1123–1129.
- 15 Baccarani, M. – Saglio, G. – Goldman, J. M., et al.: Evolving concepts in the management of chronic myeloid leukemia. Recommendations from an expert panel on behalf of the European Leukemia-net. *Blood*, 2006, 108, s. 1809–1820.
- 16 Cortes, J. E. – Jones, D. – O'Brien, S., et al.: Nilotinib as front-line treatment for patients with chronic myeloid leukemia in early chronic phase. *J Clin Oncol*, 2010, 28, s. 392–397.
- 17 Cortes, J. E. – Jones, D. – O'Brien, S., et al.: Results of dasatinib therapy in patients with early chronic phase chronic myeloid leukemia. *JCO*, 2010, 28, s. 398–404.
- 18 Baccarani, M. – Dreyling, M.: Chronic myeloid leukemia: ESMO Clinical practice guidelines for diagnosis, treatment and follow-up. *Ann Oncol*, 2010, 21, s. 165–167.
- 19 Baccarani, M. – Pilen, S. – Steegmann, J. L., et al.: Chronic myeloid leukemia: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*, 2012, 23, s. vii72–vii77.
- 20 Jabbour, E. – Kantarjian, H.: Chronic myeloid leukemia: 2012 update on diagnosis, monitoring and management. *Am J Hematol*, 2012, 87, s. 1037–1045.
- 21 Goldman, J.: Initial treatment for patients with CML. *ASH Education Book*, 2009, s. 453–460.
- 22 Klamová, H. – Voglová, J.: Léčba chronické myeloidní leukemie dle v současnosti platných doporučení České hematologické společnosti, <http://www.hematology.cz/doporucenti-klinik-cast.php>.

Dasatinib v první linii léčby chronické myeloidní leukemie v chronické fázi

MUDr. Daniela Žáčková Interní hematologická a onkologická klinika, FN a MU Brno

- 1 Baccarani, M. – Cortes, J. – Pane, F., et al.: Chronic myeloid leukemia: an update of concepts and management recommendations of European LeukemiaNet. *J Clin Oncol*, 2009, 27 (35), s. 6041–6051.
- 2 Cortes, J. E. – Jones, D. – O'Brien, S., et al.: Results of dasatinib therapy in patients with early chronic-phase chronic myeloid leukemia. *J Clin Oncol*, 2010, 28 (3), s. 398–404.
- 3 Cortes, J. E. – Rousselot, P. – Kim, D. W., et al.: Dasatinib induces complete hematologic and cytogenetic responses in patients with imatinib-resistant or -intolerant chronic myeloid leukemia in blast crisis. *Blood*, 2007, 109 (8), s. 3207–3213.
- 4 de Lavallade, H. – Apperley, J. F. – Khorashad, J. S., et al.: Imatinib for newly diagnosed patients with chronic myeloid leukemia: incidence of sustained responses in an intention-to-treat analysis. *J Clin Oncol*, 2008, 26 (20), s. 3358–3363.
- 5 Druker B. J. – Guilhot, F. – O'Brien, S. G., et al.: Five-year follow-up of patients receiving imatinib for chronic myeloid leukemia. *N Engl J Med*,

- 2006, 355, s. 2408–2417.
- 6 **Guilhot, F. – Apperley, J. – Kim, D. W., et al.:** Dasatinib induces significant hematologic and cytogenetic responses in patients with imatinib-resistant or -intolerant chronic myeloid leukemia in accelerated phase. *Blood*, 2007, 109 (10), s. 4143–4150.
 - 7 **Hehlmann, R. – Lauseker, M. – Jung-Munkwitz, S., et al.:** Tolerability-adapted imatinib 800 mg/d versus 400 mg/d versus 400 mg/d plus interferon-α in newly diagnosed chronic myeloid leukemia. *J Clin Oncol*, 2011, 29 (12), s. 1634–1642.
 - 8 **Hochhaus, A. – Kantarjian, H. M. – Baccarani, M., et al.:** Dasatinib induces notable hematologic and cytogenetic responses in chronic-phase chronic myeloid leukemia after failure of imatinib therapy. *Blood*, 2007, 109 (6), s. 2303–2309.
 - 9 **Hochhaus, A. – O'Brien, S.G. – Guilhot, F., et al.:** Six-year follow-up of patients receiving imatinib for the first-line treatment of chronic myeloid leukemia. *Leukemia*, 2009, 23 (6), s. 1054–1061.
 - 10 **Hughes, T. P. – Hochhaus, A. – Branford, S., et al.:** Long-term prognostic significance of early molecular response to imatinib in newly diagnosed chronic myeloid leukemia: an analysis from the International Randomized Study of Interferon and ST1571 (IRIS). *Blood*, 2010, 116 (19), s. 3758–3765.
 - 11 **Kantarjian, H. M. – Baccarani, M. – Jabbar, E. – Saglio, G. – Cortes, J. E.:** Second-generation tyrosine kinase inhibitors: the future of front-line CML therapy. *Clin Cancer Res*, 2011, 17 (7), s. 1674–1683.
 - 12 **Kantarjian, H. M. – Gilda, F. – Gattermann, N., et al.:** Nilotinib (formerly AMN107), a highly selective BCR-ABL tyrosine kinase inhibitor, is effective in patients with Philadelphia chromosome-positive chronic myelogenous leukemia in chronic phase following imatinib resistance and intolerance. *Blood*, 2007, 110 (10), s. 3540–3546.
 - 13 **Kantarjian, H. M. – Hochhaus, A. – Saglio, G., et al.:** Nilotinib versus imatinib for the treatment of patients with newly diagnosed chronic phase, Philadelphia chromosome-positive, chronic myeloid leukaemia: 24-month minimum follow-up of the phase 3 randomised ENESTnd trial. *Lancet Oncol*, 2011, 12 (9), s. 841–851.
 - 14 **Kantarjian, H. M. – O'Brien, S. – Shan, J., et al.:** Cytogenetic and molecular responses and outcome in chronic myelogenous leukemia: need for new response definitions? *Cancer*, 2008, 112 (4), s. 837–845.
 - 15 **Kantarjian, H. M. – Shah, N. P. – Cortes, J. E., et al.:** Dasatinib or imatinib in newly diagnosed chronic-phase chronic myeloid leukemia: 2-year follow-up from a randomized phase 3 trial (DASISION). *Blood*, 2012, 119 (5), s. 1123–1129.
 - 16 **Kantarjian, H. M. – Shah, N. P. – Hochhaus, A., et al.:** Dasatinib versus imatinib in newly diagnosed chronic-phase chronic myeloid leukemia. *N Engl J Med*, 2010, 362 (24), s. 2260–2270.
 - 17 **le Coutre, P. – Ottmann, O. G. – Gilda, F., et al.:** Nilotinib (formerly AMN107), a highly selective BCR-ABL tyrosine kinase inhibitor, is active in patients with imatinib-resistant or -intolerant accelerated-phase chronic myelogenous leukemia. *Blood*, 2008, 111 (4), s. 1834–1839.
 - 18 **Mahon, F. X. – Réa, D. – Guilhot, J., et al.:** Discontinuation of imatinib in patients with chronic myeloid leukaemia who have maintained complete molecular remission for at least 2 years: the prospective, multicentre Stop Imatinib (STIM) trial. *Lancet Oncol*, 2010, 11 (11), s. 1029–1035.
 - 19 **Marin, D. – Milojkovic, D. – Olavarria, E., et al.:** European LeukemiaNet criteria for failure or suboptimal response reliably identify patients with CML in early chronic phase treated with imatinib whose eventual outcome is poor. *Blood*, 2008, 112 (12), s. 4437–4444.
 - 20 **National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology: Chronic myelogenous leukemia**, verze 3.2013 (www.nccn.org/professionals/physician_gls/pdf/cml.pdf).
 - 21 **O'Brien, S.G. – Guilhot, F. – Larson, R. A., et al.:** Imatinib compared with interferon and low-dose cytarabine for newly diagnosed chronic-phase chronic myeloid leukemia. *N Engl J Med*, 2003, 348, s. 994–1004.
 - 22 **O'Hare, T. – Walters, D. K. – Stoffregen, E. P., et al.:** In vitro activity of Bcr-Abl inhibitors AMN107 and BMS-354825 against clinically relevant imatinib-resistant Abl kinase domain mutants. *Cancer Res*, 2005, 65 (11), s. 4500–4505.
 - 23 **Quintás-Cardama, A. – Cortes, J. E. – O'Brien, S., et al.:** Dasatinib early intervention after cytogenetic or hematologic resistance to imatinib in patients with chronic myeloid leukemia. *Cancer*, 2009, 115 (13), s. 2912–2921.
 - 24 **Radich, J. P. – Kopecky, K. J. – Appelbaum, F. R., et al.:** A randomized trial of dasatinib 100 mg versus imatinib 400 mg in newly diagnosed chronic-phase chronic myeloid leukemia. *Blood*, 2012, 120 (19), s. 3898–3905.
 - 25 **Saglio, G. – Kim, D. W. – Issaragrisil, S., et al.:** ENESTnd Investigators. Nilotinib versus imatinib for newly diagnosed chronic myeloid leukemia. *N Engl J Med*, 2010, 362 (24), s. 2251–2259.
 - 26 **Shah, N. P. – Kantarjian, H. M. – Kim, D. W., et al.:** Intermittent target inhibition with dasatinib 100 mg once daily preserves efficacy and improves tolerability in imatinib-resistant and -intolerant chronic-phase chronic myeloid leukemia. *J Clin Oncol*, 2008, 26 (19), s. 3204–3212.
 - 27 **Shah, N. P. – Kim, D. W. – Kantarjian, H., et al.:** Potent, transient inhibition of BCR-ABL with dasatinib 100 mg daily achieves rapid and durable cytogenetic responses and high transformation-free survival rates in chronic phase chronic myeloid leukemia patients with resistance, suboptimal response or intolerance to imatinib. *Haematologica*, 2010, 95 (2), s. 232–240.
 - 28 **Zackova, D. – Klamova, H. – Dusek, L., et al.:** Imatinib as the first-line treatment of patients with chronic myeloid leukemia diagnosed in the chronic phase: Can we compare real life data to the results from clinical trials? *Am J Hematol*, 2011, 86 (3), s. 318–321.

Postavení klofarabinu v léčbě dospělých pacientů s akutní myeloidní leukemií

doc. MUDr. Pavel Žák, Ph.D. IV. interní hematologická klinika,
FN a LF v Hradci Králové, Univerzita Karlova v Praze

- 1 **Lotfi, K. – Mansson, E. – Spasokoukotsaja, T., et al.:** Biochemical pharmacology and resistance to 2-chloro-2'arabino-fluoro-2'-deoxyadenosine, a novel analogue of cladribine in human leukemic cells. *Clin Cancer Res*, 1999, 5, s. 2438–2444.
- 2 **Genini, D. – Adachi, S. – Chao, Q., et al.:** Deoxyadenosine analogs induce programmed cell death in chronic lymphocytic cells by damaging the DNA and by directly affecting the mitochondria. *Blood*, 2000, 96, s. 3537–3543.
- 3 **Cooper, T. – Ayres, M. – Nowak, B., et al.:** Biochemical modulation of cytarabine triphosphate by clofarabine. *Cancer Chemother Pharmacol*, 2005, 55, s. 361–368.
- 4 **Gandhi, V. – Kantarjian, H. – Fadrel, S., et al.:** Pharmacokinetics and pharmacodynamics of plasma clofarabin and cellular clofarabine triphosphate in patients with acute leukemias. *Clin Cancer Res*, 2003, 9, s. 6335–6342.
- 5 **Burnett, A. K. – Russell, N. H. – Kell, J., et al.:** European development

- of clofarabine as treatment for older patient with acute myeloid leukemia considered unsuitable for intensive chemotherapy. *J Clin Oncol*, 2010, 28, s. 2389–2395.
- 6 Faderl, S. – Ravandi, F. – Huang, X., et al.: A randomized study of clofarabine versus clofarabine plus low-dose cytarabine as front line therapy for patients aged 60 years and older with acute myeloid leukemia and high risk myelodysplastic syndrome. *Blood*, 2008, 112, s. 1638–1645.
 - 7 Burnett, A. – Baccarani, M. – Johnson, P., et al.: Effectiveness of clofarabine in elderly AML patients with adverse cytogenetics unfit for intensive chemotherapy. *Blood*, 2006, 108, abstract 1985.
 - 8 Faderl, S. – Gandhi, V. – Verstovsek, S., et al.: Clofarabine plus cytarabine (Ara-C) combination is active in newly diagnosed patients (pts) \geq age 50 with acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS). *Blood*, 2004, 104, abstract 875.
 - 9 Nazha, A. – Ravandi, F. – Kantarjian, H. M., et al.: Clofarabine, idarubicin and cytarabine (CIA) as frontline therapy for patients younger than 61 years with newly diagnosed acute myeloid leukemia (AML). *Blood*, 2011, 118, abstract 1550.
 - 10 Mathisen, M. – Kanrjian, H. – Faderl, S., et al.: Interim results of a I/II randomized study of clofarabin, idarubicine and cytarabine (FIA) for newly diagnosed or relapsed patients (pts) with acute myeloid leukemia (AML). *J Clin Oncol*, 2012, 30, abstract 6607.
 - 11 Kantarjian, H. M. – Gandhi, V. – Cortes, J., et al.: Phase 2 clinical and pharmacologic study of clofarabine in patients with refractory or relapsed acute leukemias. *Clinical Cancer Res*, 2003, 9, s. 6335–6342.
 - 12 Burnett, A. K. – Kell, W. J. – Hills, R. K., et al.: The feasibility of combining daunorubicin, clofarabine and gentuzumab ozogamicin is feasible and effective. A pilot study. *Blood*, 2006, 108, abstract 1950.
 - 13 Racil, Z. – Toskova, M. – Dvorakova, D., et al.: Treatment of molecular relapse in patients with acute myeloid leukemia using clofarabin monotherapy. *Am J Hematol*, 2011, 87, s. 211–213.
 - 14 Martin, M. G. – Uy, G. L. – Procknow, E., et al.: Allo-stem cell conditioning for myelodysplastic syndrome and acute myeloid leukemia with cladribine, cytarabine and ATG. *Bone Marrow Transplant*, 2009, 44, s. 13–17.
 - 15 Farag, S. S. – Wood, L. L. – Schwartz, J. E., et al.: Phase I trial and pharmacokinetic study of high-dose clofarabine and busulfan and allogeneic stem cell transplantation in adult with high risk and refractory acute leukemia. *Leukemia*, 2011, 25, s. 599–606.
 - 16 Becker, P. S. – Kantarjian, H. M. – Appelbaum, F. R., et al.: Clofarabine with high dose cytarabine and granulocyte colony-stimulating factor (G-CSF) priming for relapsed and refractory acute myeloid leukaemia. *Br J Haematol*, 2011, 155, s. 182–189.
 - 17 Locke, F. L. – Artz, A. – Rich, E., et al.: Feasibility of clofarabine cytoreduction before allogeneic transplant conditioning for refractory AML. *Bone Marrow Transplant*, 2010, 45, s. 1692–1698.
 - 18 Buchholz, S. – Dammann, E. – Stadler, M., et al.: Cytoreductive treatment with clofarabine/ara-C combined with reduced-intensity conditioning and allogeneic stem cell transplantation in patients with high-risk, relapsed, or refractory acute myeloid leukemia and advanced myelodysplastic syndrome. *Eur J Haematol*, 2012, 88, s. 52–60.

Pacient s lymfomem a mnohočetným myelomem s nedostatečnou mobilizací krvetvorných buněk – léčba plerixaforem

MUDr. Zdeněk Koříštek, Ph.D.

Separáční středisko, Interní hematologická a onkologická klinika FN a MU, Brno

- 1 Bergsagel, L. – De Sprague, C. C. – Austin, C. – Griffith, K. M.: Evaluation of new chemotherapeutic agents in the treatment of multiple myeloma. IV. L-phenylalanine mustard (NSC-8806). *Cancer Chemotherapy Report*, 1962, 21, s. 87–99.
- 2 Barlogie, B. – Hall, R. – Zander, A. – Dicke, K. – Alexanian, R.: High-dose melphalan with autologous bone marrow transplantation for multiple myeloma. *Blood*, 1986, 67, s. 1298–1301.
- 3 Flomenberg, N. – Devine, S. M. – DiPersio, J. F., et al.: The use of AMD3100 plus G-CSF for autologous hematopoietic progenitor cell mobilization is superior to G-CSF alone. *Blood*, 2005, 106, s. 1867–1874.
- 4 Calandra, G. – McCarty, J. – McGuirk, J., et al.: AMD3100 plus G-CSF can successfully mobilize CD34+ cells from non-Hodgkin's lymphoma, Hodgkin's disease and multiple myeloma patients previously failing mobilization with chemotherapy and/or cytokine treatment: compassionate use data. *Bone Marrow Transplant*, 2008, 41, s. 331–338.
- 5 Micallef, I. N. – Stiff, P. J. – DiPersio, J., et al.: Successful Stem Cell
- Successful stem cell remobilization using plerixafor (Mozobil) plus granulocyte colony-stimulating factor in patients with non-hodgkin lymphoma: results from the plerixafor NHL phase 3 study rescue protocol. *Biol Blood Marrow Transplant*, 2009, 15, s. 1578–1586.
- 6 Duarte, R. F. – Shaw, B. E. – Marín, P., et al.: Plerixafor plus granulocyte CSF can mobilize hematopoietic stem cells from multiple myeloma and lymphoma patients failing previous mobilization attempts: EU compassionate use data. *Bone Marrow Transplant*, 2011, 46, s. 52–58.
- 7 Dugan, M. J. – Maziarz, R. T. – Besinger, W. I., et al.: Safety and preliminary efficacy of plerixafor (Mozobil) in combination with chemotherapy and G-CSF: an open-label, multicenter, exploratory trial in patients with multiple myeloma and non-Hodgkin's lymphoma undergoing stem cell mobilization. *Bone Marrow Transplant*, 2010, 45, s. 39–47.
- 8 Koříštek, Z. – Pohlreich, D. – Lysák, D., et al.: Mobilizace krvetvorných buněk pomocí plerixaforu – zkušenosti transplantačních center v České republice. *Transfuze Hematol dnes*, 2012, 18, s. 6–12.

Léčba imunitní trombocytopenie po selhání kortikoterapie

doc. MUDr. Tomáš Kozák, Ph.D.

Interní hematologická klinika 3. LF UK v Praze a FN Královské Vinohrady, Praha

- 1 Provan, D. – Stasi, R. – Newland, A. C. – Blanchette, V. S. – Bolton-Maggs, P. – Bussel, J. B., et al.: International consensus report on the investigation and management of primary immune thrombocytopenia. *Blood*, 2010, 115, s. 168–186.
- 2 Neunert, C. – Lim, W. – Crowther, M. – Cohen, A. – Solberg, L. Jr. – Crowther, M. A.: American Society of Hematology. The American Society of Hematology 2011 evidence-based practice guideline for immune thrombocytopenia. *Blood*, 2011, 117, s. 4190–4207.
- 3 Kajouri, K. – Vesely, S. K. – Terrell, D. R., et al.: Splenectomy for adult patients with idiopathic thrombocytopenic purpura: a systematic review to assess long-term platelet count responses, prediction of response, and surgical complications. *Blood*, 2004, 104, s. 2623–2634.
- 4 Rodeghiero, F. – Stasi, R. – Gernsheimer, T. – Michel, M. – Provan, D., et al.: Standardization of terminology, definitions and outcome criteria in immune thrombocytopenic purpura of adults and children: report from an international working group. *Blood*, 2009, 113, s. 2386–2393.
- 5 Arnold, D. M. – Dentali, F. – Crowther, M. A. – Meyer, R. M. – Cook, R. J. – Sigouin, C., et al.: Systemantic review: efficacy and safety of rituximab for adults with idiopathic thrombocytopenic purpura. *Ann Inter Med*, 2007, 146, s. 25–33.
- 6 Godeau, B. – Porcher, R. – Fain, O. – Lefrère, F. – Fenaux, P. – Cheze, S., et al.: Rituximab efficacy and safety in adult splenectomy candidates with chronic immune thrombocytopenic purpura: results of a prospective multicenter phase 2 study. *Blood*, 2008, 112, s. 999–1004.
- 7 Arnold, D. M. – Heddle, N. M. – Carruthers, J. – Cook, D. J. – Crowther, M. A. – Meyer, R. M., et al.: Apilot randomized trial of adjuvant rituximab or placebo for nonsplenectomized patients with immune thrombocytopenia. *Blood*, 2012, 119, s. 1356–1362.
- 8 Cooper, N. – Evangelista, M. L. – Amadori, S. – Stasi, R.: Should rituximab be used before or after splenectomy in patiens with immune thrombocytopenic purpura? *Curr Opin Hematol*, 2007, 14, s. 642–646.
- 9 Kuter, D. J. – Bussel, J. B. – Lyons, R. M., et al.: Efficacy of romiplostim in patients with chronic immune thrombocytopenic purpura: a double-blind randomised controlled trial. *Lancet*, 2008, 371, s. 395–403.
- 10 Bussel, J. B. – Cheng, G. – Saleh, M. N., et al.: Eltrombopag for the treatment of chronic idiopathic thrombocytopenic purpura. *N Engl J Med*, 2007, 357, s. 2237–2247.

Léčba ofatumumabem při refrakteritě na léčbu fludarabinem a alemtuzumabem

MUDr. Martin Šimkovič | doc. MUDr. Lukáš Smolej, Ph.D.

IV. interní hematologická klinika, FN a LF UK, Hradec Králové

- 1 Hallek, M. – Cheson, B. D. – Catovsky, D., 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. – Fischer, K. – Fingerle-Rowson, G., 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 Robak, T. – Dmoszynska, A. – Solal-Celigny, P., et al.: Rituximab plus fludarabine and cyclophosphamide prolongs progression-free survival compared with fludarabine and cyclophosphamide alone in previously treated chronic lymphocytic leukemia. *J Clin Oncol*, 2010, 28, s. 1756–1765.
- 4 Keating, M. J. – Flinn, I. – Jain, V., et al.: Therapeutic role of alemtuzumab (Campath-1H) in patients who have failed fludarabine: results of a large international study. *Blood*, 2002, 99, s. 3554–3561.
- 5 Rai, K. R. – Freter, C. E. – Mercier, R. J., et al.: Alemtuzumab in previously treated chronic lymphocytic leukemia patients who also had received fludarabine. *J Clin Oncol*, 2002, 20, s. 3891–3897.
- 6 Moreton, P. – Kennedy, B. – Lucas, G., et al.: Eradication of minimal residual disease in B-cell chronic lymphocytic leukemia after alemtuzumab therapy is associated with prolonged survival. *J Clin Oncol*, 2005, 23, s. 2971–2979.
- 7 Keating, M. J. – O'Brien, S. – Kontoyiannis, D., et al.: Results of first salvage therapy for patients refractory to a fludarabine regimen in chronic lymphocytic leukemia. *Leuk Lymphoma*, 2002, 43, s. 1755–1762.
- 8 Stashenko, P. – Nadler, L. M. – Hardy, R., et al.: Characterization of a human B lymphocyte-specific antigen. *J Immunol*, 1980, 125, s. 1678–1685.
- 9 Keating, M. J. – O'Brien, S. – Albitar, M., et al.: Early results of a chemoimmunotherapy regimen of fludarabine, cyclophosphamide, and rituximab as initial therapy for chronic lymphocytic leukemia. *J Clin Oncol*, 2005, 23, s. 4079–4088.
- 10 O'Brien, S. M. – Kantarjian, H. – Thomas, D. A., et al.: Rituximab dose-escalation trial in chronic lymphocytic leukemia. *Journal of Clinical Oncology*, 2001, 19, s. 2165–2170.
- 11 Teeling, J. L. – French, R. R. – Cragg, M. S., et al.: Characterization of new human CD20 monoclonal antibodies with potent cytolytic activity against non-Hodgkin lymphomas. *Blood*, 2004, 104, s. 1793–1800.
- 12 Glennie, M. J. – French, R. R. – Cragg, M. S., et al.: Mechanisms of killing by anti-CD20 monoclonal antibodies. *Mol Immunol*, 2007, 44, s. 3823–3837.
- 13 Golay, J. – Lazzari, M. – Facchinetto, V., et al.: CD20 levels determine the in vitro susceptibility to rituximab and complement of B-cell chronic lymphocytic leukemia: further regulation by CD55 and CD59. *Blood*, 2001, 98, s. 3383–3389.
- 14 Teeling, J. L. – Mackus, W. J. – Wiegman, L. J., et al.: The biological activity of human CD20 monoclonal antibodies is linked to unique epitopes on CD20. *J Immunol*, 2006, 177, s. 362–371.
- 15 Robak, T.: Ofatumumab, a human monoclonal antibody for lymphoid malignancies and autoimmune disorders. *Curr Opin Mol Ther*, 2008, 10, s. 294–309.
- 16 Bleeker, W. K. – Munk, M. E. – Mackus, W. J., et al.: Estimation of dose requirements for sustained in vivo activity of a therapeutic human anti-CD20 antibody. *Br J Haematol*, 2008, 140, s. 303–312.
- 17 Coiffier, B. – Lepretre, S. – Pedersen, L. M., et al.: Safety and efficacy of ofatumumab, a fully human monoclonal anti-CD20 antibody, in patients with relapsed or refractory B-cell chronic lymphocytic leukemia:

- a phase 1-2 study. *Blood*, 2008, 111, s. 1094–1100.
- 18 Winkler, U. – Jensen, M. – Manzke, O., et al.: Cytokine-release syndrome in patients with B-cell chronic lymphocytic leukemia and high lymphocyte counts after treatment with an anti-CD20 monoclonal antibody (rituximab, IDEC-C2B8). *Blood*, 1999, 94, s. 2217–2224.
 - 19 Ostergaard, M. – Baslund, B. – Rigby, W., et al.: Ofatumumab, a human anti-CD20 monoclonal antibody, for treatment of rheumatoid arthritis with an inadequate response to one or more disease-modifying antirheumatic drugs: results of a randomized, double-blind, placebo-controlled, phase I/II study. *Arthritis Rheum*, 2010, 62, s. 2227–2238.
 - 20 Wierda, W. G. – Kipps, T. J. – Mayer, J., et al.: Ofatumumab as single-agent CD20 immunotherapy in fludarabine-refractory chronic lymphocytic leukemia. *J Clin Oncol*, 2010, 28, s. 1749–1755.
 - 21 Wierda, W. G. – Padmanabhan, S. – Chan, G. W., et al.: Ofatumumab is active in patients with fludarabine-refractory CLL irrespective of prior rituximab: results from the phase 2 international study. *Blood*, 2011, 118, s. 5126–5129.
- 22 Common Terminology Criteria for Adverse Events v4.0 (CTCAE).
- 23 Gravanis, I. – Ersboll, J. – Skovlund, E., et al.: The European Medicines Agency review of ofatumumab (Arzerra(R)) for the treatment of chronic lymphocytic leukemia in patients refractory to fludarabine and alemtuzumab: summary of the scientific assessment of the European medicines agency committee for medicinal products for human use. *Oncologist*, 2010, 15, s. 1335–1343.
 - 24 Ofatumumab summary of products characteristics; dostupné z: http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/001131/WC500093091.pdf, vyhledáno 17. 12. 2012.

Abelcet (ABLC) při léčbě závažných invazivních mykóz

MUDr. Jan Haber, CSc. I. interní klinika – klinika hematologie 1. LF UK a VFN Praha

- 1 Klastersky, J.: The changing face of febrile neutropenia-from monotherapy to moulds to mucositis. Why empirical therapy? *J Antimicrob Chemother*, 2009, 63, dopl. 1, s. i14–15.
- 2 Freifeld, A. G. – Bow, E. J. – Sepkowitz, K. A., et al.: Clinical practice guideline for the use of antimicrobial agents in neutropenic patients with cancer: 2010 Update by the Infectious Diseases Society of America. *Clin Infect Dis*, 2011, 52, s. 427–431.
- 3 Drgoňa, L. – Haber, J. – Ráčil, Z., et al.: Empirická liečba febrilnej neutropénie u onkohematologických pacientov – odporúčanie odborníkov s podporou CELL, ČOS ČSL JEP. *Postgraduální medicína*, 2011, 13, s. 47–50.
- 4 Herbrecht, R. – Flückiger, U. – Gachot, B., et al.: 2011 update ECIL-4 Antifungal Therapy in Leukemia Patients. In: *The 4th European Conference on Infections in Leukemia*, 6. 9. 2011.
- 5 Herbrecht, R. – Flückiger, U. – Gachot, B., et al.: 2007 update of the ECIL-1 guidelines for Antifungal therapy in leukemia patients. In: *2nd European Conference on Infections in Leukemia*. Juan-les-Pins-France: 28.–29. 9. 2007.
- 6 Haber, J. – Ráčil, Z. – Mayer, J., et al.: Léčba invazívnej kandidózy – doporučení odborných společností. *Vnitř Lék*, 2008, 54, s. 1174–1184.
- 7 Ráčil, Z. – Haber, J. – Drgoňa, L., et al.: Empirická antymykotická léčba febrilnej neutropenie u nemocných s hematologickou malignitou – doporučení odborníkov – s podporou CELL, ČHS JEP, ČOS JEP, SCHS SLS. *Mimořádná příloha Postgraduální medicíny*, 2010, 12, s. 66–68.
- 8 Ráčil, Z. – Mayer, J. – Kocmanová, I., et al.: Léčba invazívnej aspergilózy – doporučení odborných společností. *Vnitř Lék*, 2008, 54, s. 1187–1194.
- 9 Fridkin, S. K.: Candidemia is costly – plain and simple. *Clin Infect Dis*, 2005, 41, s. 1240–1241.
- 10 Girmenia, C. – Finolezzi, E. – Federico, V., et al.: Invasive Candida infections in patients with haematological malignancies and hematopoietic stem cell transplant recipients: current epidemiology and therapeutic options. *Mediterr J Hematol Infect Dis*, 2011, 3, e2011013.
- 11 Pagano, L. – Caira, M. – Candoni, A., et al.: The epidemiology of fungal infections in patients with hematologic malignancies: the SEIFEM-2004 study. *Haematologica*, 2006, 91, s. 1068–1075.
- 12 Ito, J. I. – Hooshmand-Rad, R.: Treatment of Candida infections with amphotericin B lipid complex. *Clin Infect Dis*, 2005, 40, dopl. 6, S384–391.
- 13 Rex, J. H. – Bennett, J. E. – Sugar, A. M., et al.: A randomized trial comparing fluconazole with amphotericin B for the treatment of candidemia in patients without neutropenia. Candidemia Study Group and the National Institute. *N Engl J Med*, 1994, 331, s. 1325–1330.
- 14 Rex, J. H. – Pappas, P. G. – Karchmer, A. W., et al.: A randomized and blinded multicenter trial of high-dose fluconazole plus placebo versus fluconazole plus amphotericin B as therapy for candidemia and its consequences in non-neutropenic subjects. *Clin Infect Dis*, 2003, 36, s. 1221–1228.
- 15 Anaissie, E. J. – Darouiche, R. O. – Abi-Said, D., et al.: Management of invasive candidal infections: results of a prospective, randomized, multicenter study of fluconazole versus amphotericin B and review of the literature. *Clin Infect Dis*, 1996, 23, s. 964–972.
- 16 Phillips, P. – Shafran, S. – Garber, G., et al.: Multicenter randomized trial of fluconazole versus amphotericin B for treatment of candidemia in non-neutropenic patients. Canadian Candidemia Study Group. *Eur J Clin Microbiol Infect Dis*, 1997, 16, s. 337–345.
- 17 Kullberg, B. J. – Sobel, J. D. – Ruhnke, M., et al.: Voriconazole versus a regimen of amphotericin B followed by fluconazole for candidemia in non-neutropenic patients: a randomised non-inferiority trial. *Lancet*, 2005, 366, s. 1435–1442.
- 18 Mora-Duarte, J. – Betts, R. – Rotstein, C., et al.: Comparison of caspofungin and amphotericin B for invasive candidiasis. *N Engl J Med*, 2002, 347, s. 2020–2029.
- 19 Reboli, A. C. – Rotstein, C. – Pappas, P. G., et al.: Anidulafungin versus fluconazole for invasive candidiasis. *N Engl J Med*, 2007, 356, s. 2472–2482.
- 20 Kuse, E. R. – Chetchotisakd, P. – da Cunha, C. A., et al.: Micafungin versus liposomal amphotericin B for candidaemia and invasive candidosis: a phase III randomised double-blind trial. *Lancet*, 2007, 369, s. 1519–1527.
- 21 Kish, M. A.: Guide to development of practice guidelines. *Clin Infect Dis*, 2001, 32, s. 851–854.
- 22 Herbrecht, R. – Flückiger, U. – Gachot, B., et al.: Treatment of invasive *Candida* and invasive *Aspergillus* infections in adult haematological patients. *European Journal of Cancer Supplements*, 2007, 5, s. 49–59.
- 23 Lichtenstern, C. – Nguyen, T. H. – Schemmer, P., et al.: Efficacy of caspofungin in invasive candidiasis and candidemia-de-escalation strategy. *Mycoses*, 2008, 51, dopl. 1, s. 35–46.
- 24 Chandrasekar, P. H. – Ito, J. I.: Amphotericin B lipid complex in the management of invasive aspergillosis in immunocompromised patients. *Clin Infect Dis*, 2005, 40, dopl. 6, S392–400.
- 25 Ascioglu, S. – Rex, J. H. – de Pauw, B., et al.: Defining opportunistic invasive fungal infections in immunocompromised patients with cancer and hematopoietic stem cell transplants: an international consensus. *Clin Infect Dis*, 2002, 34, s. 7–14.
- 26 Herbrecht, R. – Denning, D. W. – Patterson, T. F., et al.: Voriconazole versus amphotericin B for primary therapy of invasive aspergillosis. *N Engl J Med*, 2002, 347, s. 408–415.
- 27 Bowden, R. – Chandrasekar, P. – White, M. H., et al.: A double-blind,

- randomized, controlled trial of amphotericin B colloidal dispersion versus amphotericin B for treatment of invasive aspergillosis in immunocompromised patients. *Clin Infect Dis*, 2002, 35, 359–366.
- 28 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.
- 29 Denning, D. W. – Ribaud, P. – Milpied, N., et al.: Efficacy and safety of voriconazole in the treatment of acute invasive aspergillosis. *Clin Infect Dis*, 2002, 34, s. 563–571.
- 30 Maertens, J. – Raad, I. – Petrikos, G., et al.: Efficacy and safety of caspofungin for treatment of invasive aspergillosis in patients refractory to or intolerant of conventional antifungal therapy. *Clin Infect Dis*, 2004, 39, s. 1563–1571.
- 31 Kartsonis, N. A. – Saah, A. J. – Joy Lipka, C., et al.: Salvage therapy with caspofungin for invasive aspergillosis: results from the caspofungin compassionate use study. *J Infect*, 2005, 50, s. 196–205.
- 32 Caillot, D. – Bassaris, H. – McGeer, A., et al.: Intravenous itraconazole followed by oral itraconazole in the treatment of invasive pulmonary aspergillosis in patients with hematologic malignancies, chronic granulomatous disease, or AIDS. *Clin Infect Dis*, 2001, 33, e83–90.
- 33 Larkin, J. A. – Montero, J. A.: Efficacy and safety of amphotericin B lipid complex for zygomycosis. *Infect Med*, 2003, 20, s. 201–206.
- 34 Marr, K. A. – Carter, R. A. – Crippa, F., et al.: Epidemiology and outcome of mould infections in hematopoietic stem cell transplant recipients. *Clin Infect Dis*, 2002, 34, s. 909–917.
- 35 Kontoyiannis, D. P. – Wessel, V. C. – Bodey, G. P. – Rolston, K. V.: Zygomycosis in the 1990s in a tertiary-care cancer center. *Clin Infect Dis*, 2000, 30, s. 851–856.
- 36 Kontoyiannis, D. P. – Lionakis, M. S. – Lewis, R. E., et al.: Zygomycosis in a tertiary-care cancer center in the era of Aspergillus-active antifungal therapy: a case-control observational study of 27 recent cases. *J Infect Dis*, 2005, 191, s. 1350–1360.
- 37 Bitar, D. – Van Cauteren, D. – Lantertier, F., et al.: Increasing incidence of zygomycosis (mucormycosis), France, 1997–2006. *Emerg Infect Dis*, 2009, 15, s. 1395–1401.
- 38 Skiada, A. – Pagano, L. – Groll, A., et al.: Zygomycosis in Europe: analysis of 230 cases accrued by the registry of the European Confederation of Medical Mycology (ECMM) Working Group on Zygomycosis between 2005 and 2007. *Clin Microbiol Infect*, 2011, 17, s. 1859–1867.
- 39 Petrikos, G. – Skiada, A. – Lortholary, O., et al.: Epidemiology and clinical manifestations of mucormycosis. *Clin Infect Dis*, 2012, 54, dopl. 1, S23–34.
- 40 Stelzmueller, I. – Lass-Floerl, C. – Geltner, C., et al.: Zygomycosis and other rare filamentous fungal infections in solid organ transplant recipients. *Transpl Int*, 2008, 21, s. 534–546.
- 41 Chayakulkeeree, M. – Ghannoum, M. A. – Perfect, J. R.: Zygomycosis: the re-emerging fungal infection. *Eur J Clin Microbiol Infect Dis*, 2006, 25, s. 215–229.
- 42 Bouza, E. M. P. – Guinea, J.: Mucormycosis: an emerging disease? *Clin Microbiol Infect*, 2006, 12, s. 7–23.
- 43 Herbrecht, R. – Letscher-Bru, V. – Bowden, R. A., et al.: Treatment of 21 cases of invasive mucormycosis with amphotericin B colloidal dispersion. *Eur J Clin Microbiol Infect Dis*, 2001, 20, s. 460–466.
- 44 Greenberg, R. N. – Scott, L. J. – Vaughn, H. H. – Ribes, J. A.: Zygomycosis (mucormycosis): emerging clinical importance and new treatments. *Curr Opin Infect Dis*, 2004, 17, s. 517–525.
- 45 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.
- 46 van Burik, J. A. – Hare, R. S. – Solomon, H. F., et al.: Posaconazole is effective as salvage therapy in zygomycosis: a retrospective summary of 91 cases. *Clin Infect Dis*, 2006, 42, e61–65.
- 47 Spellberg, B. – Walsh, T. J. – Kontoyiannis, D. P., et al.: Recent advances in the management of mucormycosis: from bench to bedside. *Clin Infect Dis*, 2009, 48, s. 1743–1751.
- 48 Verma, A. – Williams, S. – Trifilio, S., et al.: Successful treatment of concomitant pulmonary zygomycosis and aspergillosis with a combination of amphotericin B lipid complex, caspofungin, and voriconazole in a patient on immunosuppression for chronic graft-versus-host disease. *Bone Marrow Transplant*, 2004, 33, s. 1065–1066.
- 49 Reed, C. – Bryant, R. – Ibrahim, A. S., et al.: Combination polyene-caspofungin treatment of rhino-orbital-cerebral mucormycosis. *Clin Infect Dis*, 2008, 47, s. 364–371.
- 50 Page, R. L. 2nd – Schwiesow, J. – Hilts, A.: Posaconazole as salvage therapy in a patient with disseminated zygomycosis: case report and review of the literature. *Pharmacotherapy*, 2007, 27, s. 290–298.
- 51 Rogers, T. R.: Treatment of zygomycosis: current and new options. *J Antimicrob Chemother*, 2008, 61, dopl. 1, i35–40.
- 52 Pagano, L. – Valentini, C. G. – Caira, M. – Fianchi, L.: ZYGOMYCOSIS: current approaches to management of patients with haematological malignancies. *Br J Haematol*, 2009, 146, s. 597–606.
- 53 Neofytos, D. – Horn, D. – Anaissie, E., et al.: Epidemiology and outcome of invasive fungal infection in adult hematopoietic stem cell transplant recipients: analysis of Multicenter Prospective Antifungal Therapy (PATH) Alliance registry. *Clin Infect Dis*, 2009, 48, s. 265–273.
- 54 Perfect, J. R. – Dismukes, W. E. – Dromer, F., et al.: Clinical practice guidelines for the management of cryptococcal disease: 2010 update by the infectious diseases society of america. *Clin Infect Dis*, 2010, 50, s. 291–322.
- 55 Loyse, A. – Wilson, D. – Meintjes, G., et al.: Comparison of the early fungicidal activity of high-dose fluconazole, voriconazole, and flucytosine as second-line drugs given in combination with amphotericin B for the treatment of HIV-associated cryptococcal meningitis. *Clin Infect Dis*, 2012, 54, s. 121–128.
- 56 Chandrasekar, P.: Management of invasive fungal infections: a role for polyenes. *J Antimicrob Chemother*, 2011, 66, s. 457–465.

Lékový profil – Caduet

MUDr. Jiří Slíva, Ph.D. Ústavy farmakologie 2. a 3. LF UK, Praha

- 1 Abernethy, D. R.: Pharmacokinetics and pharmacodynamics of amlodipine. *Cardiology*, 1992, 80, s. 31–36.
- 2 Slíva, J. – Votava, M.: *Farmakologie*. Lékařské repetitorium ed. Praha, Triton, 2011.
- 3 Abernethy, D. R.: The pharmacokinetic profile of amlodipine. *Am Heart J*, 1989, 118, s. 1100–1103.
- 4 Blank, R. – LaSalle, J. – Reeves, R. – Maroni, J. – Tarasenko, L. – Sun, F.: Single-pill therapy in the treatment of concomitant hypertension and dyslipidemia (the amlodipine/atorvastatin gemini study). *J Clin Hypertens (Greenwich)*, 2005, 7, s. 264–273.
- 5 Messerli, F. H. – Bakris, G. L. – Ferrera, D., et al.: Efficacy and safety of coadministered amlodipine and atorvastatin in patients with hypertension and dyslipidemia: results of the AVALON trial. *J Clin Hypertens (Greenwich)*, 2006, 8, s. 571–581.
- 6 Hussein, M. A. – Chapman, R. H. – Benner, J. S., et al.: Does a single-pill antihypertensive/lipid-lowering regimen improve adherence in US managed care enrollees? A non-randomized, observational, retrospective study. *Am J Cardiovasc Drugs*, 2010, 10, s. 193–202.

- 7 Simons, L. A. – Ortiz, M. – Calcino, G.: Persistence with a single pill versus two pills of amlodipine and atorvastatin: the Australian experience, 2006–2010. *Med J Aust*, 2011, 195, s. 134–137.
- 8 Oliver, S. – Jones, J. – Leonard, D. – Crabbe, A. – Delkhah, Y. – Nesbitt, S.: Improving adherence with amlodipine/atorvastatin therapy: IMPACT study. *J Clin Hypertens (Greenwich)*, 2011, 13, s. 598–604.
- 9 Ma, B. – Prueksaritanont, T. – Lin, J. H.: Drug interactions with calcium channel blockers: possible involvement of metabolite-intermediate complexation with CYP3A. *Drug Metab Dispos*, 2000, 28, s. 125–130.
- 10 Katoh, M. – Nakajima, M. – Shimada, N. – Yamazaki, H. – Yokoi, T.: Inhibition of human cytochrome P450 enzymes by 1,4-dihydropyridine calcium antagonists: prediction of in vivo drug-drug interactions. *Eur J Clin Pharmacol*, 2000, 55, s. 843–852.

Kombinovaná léčba nemocných s mnohočetným myelomem – lenalidomid

prof. MUDr. Roman Hájek, CSc. | MUDr. Hana Plonková

Ústav klinické hematologie FN Ostrava a LF Univerzity Ostrava

- 1 Attal, M. – Olivier, P. – Cannes-Lauwers, V., et al.: Maintenance treatment with lenalidomide after transplantation for myeloma: analysis of secondary malignancies within the IFM 2005–02 trial. *Haematologica*, 2011, 96, s. 23.
- 2 Attal, M. – Lauwers-Cances, V. – Marit, G., et al.: Lenalidomide maintenance after stem-cell transplantation for multiple myeloma. *N Engl J Med*, 2012, 366, s. 1782–1791.
- 3 Davies, F. – Baz, R.: Lenalidomide mode of action: linking bench and clinical findings. *Blood*, 2010, 2, s.13–19.
- 4 Dimopoulos, M. – Spencer, A. – Attal, M., et al.: Lenalidomide plus dexamethasone for relapsed or refractory multiple myeloma. *N Engl J Med*, 2007, 357, s. 2123–2132.
- 5 Hájek, R., et al.: Diagnostika a léčba mnohočetného myelomu. Dopro-ručení vypracované Českou myelomovou skupinou, Myelomovou sekcií ČHS a Slovenskou myelomovou společností pro diagnostiku a léčbu mnohočetného myelomu. *Transfuze a hematologie dnes*, 2012, s. 1–92.
- 6 Knop, S. – Gerecke, C. – Liebisch, P., et al.: Lenalidomide, adriamycin, and dexamethasone (RAD) in patients with relapsed and refractory multiple myeloma: a report from the German Myeloma Study Group DSMM (Deutsche Studiengruppe Multiples Myelom). *Blood*, 2009, 13, s. 4137–4143.
- 7 Kumar, S. K. – Rajkumar, S. V. – Dispenzieri, A., et al.: Improved survival in multiple myeloma and the impact of novel therapies. *Blood*, 2008, 111, s. 2516–2520.
- 8 Ludwig, H. – Durie, B. G. – McCarthy, P., et al.: IMWG consensus on maintenance therapy in multiple myeloma. *Blood*, 2012, 119, s. 3003–3015.
- 9 Mateos, M. V. – Oriol, A. – Teruel, A. I., et al.: Maintenance therapy with Bortezomib plus Thalidomide (VT) or Bortezomib plus Prednisone (VP) in elderly myeloma patients included in the GEM2005MAS65 Spanish Randomized Trial. *Blood (ASH Annual Meeting Abstracts)*, 2011, 477, s. 118.
- 10 McCarthy, P. L. – Owzar, K. – Hofmeister, C. C., et al.: Lenalidomide after stem-cell transplantation for multiple myeloma. *N Engl J Med*, 2012, 366, s. 1770–1781.
- 11 Moreau, P. – Pylypenko, H. - Grosicki S., et al.: Subcutaneous versus intravenous administration of bortezomib in patients with relapsed multiple myeloma: a randomised, phase 3, non-inferiority study. *Lancet Oncol*, 2011, 12, s. 431–440.
- 12 Offidani, M. – Corvatta, L. – Morabito, F., et al.: How to treat patients with relapsed/refractory multiple myeloma: evidence-based information and opinions. *Expert Opin Investig Drugs*, 2011, 20, s. 779–793.
- 13 Palumbo, A. – Freeman, J. – Weiss, L., et al.: The clinical safety of lenalidomide in multiple myeloma and myelodysplastic syndromes. *Expert Opin Drug Saf*, 2012, 11, s. 107–120.
- 14 Palumbo, A. – Hajek, R. – Delforge, M., et al.: Continuous lenalidomide treatment for newly diagnosed multiple myeloma. *N Engl J Med*, 2012, 366, s. 1759–1769.
- 15 San-Miguel, J. F. – Schlag, R. – Khuageva, N. K., et al.: VISTA Trial Investigators. Bortezomib plus melphalan and prednisone for initial treatment of multiple myeloma. *N Engl J Med*, 2008, 359, s. 906–917.
- 16 San-Miguel, J. F. – Dimopoulos, M. A. – Stadtmauer, E. A., et al.: Effects of lenalidomide and dexamethasone treatment duration on survival in patients with relapsed or refractory multiple myeloma treated with lenalidomide and dexamethasone. *Clin Lymphoma Myeloma Leuk*, 2011, 11, s. 38–43.
- 17 Schey, S. A., et al.: The addition of cyclophosphamide to lenalidomide and dexamethasone in multiply relapsed/refractory myeloma patients: A Phase I/II study. *British Journal of Haematology*, 2010, 150, s. 326–333.
- 18 Sonneveld, P. – Schmidt-Wolf, I. G. – van der Holt, B., et al.: Bortezomib induction and maintenance treatment in patients with newly diagnosed multiple myeloma: Results of the randomized phase III HOVON-65/ GMMG-HD4 trial. *J Clin Oncol*, 2012, 30, s. 2946–2955.
- 19 Richardson, P. G. – Keller, E. – Lonial, S., et al.: Lenalidomide, bortezomib, and dexamethasone combination therapy in patients with newly diagnosed multiple myeloma. *Blood*, 2010, 116, s. 679–686.
- 20 Weber, D. M. – Chen, C. – Niesvizky, R., et al.: Multiple Myeloma (009) Study Investigators. Lenalidomide plus dexamethasone for relapsed multiple myeloma in North America. *N Engl J Med*, 2007, 357, s. 2133–2142.

Těžká forma psoriázy a psoriatické artritidy léčená ustekinumabem – kazuistika

MUDr. Jiří Ettler | MUDr. Spyridon Gkalpakiotis, Ph.D. | prof. MUDr. Petr Arenberger, DrSc., MBA
Dermatovenerologická klinika 3. LF UK a FN Královské Vinohrady, Praha

- 1 Mease, P. J.: Psoriatic arthritis—treatment update. *Bull NYU Hosp Jt Dis*, 2011, 69, s. 243–249.
- 2 Gottlieb, A. – Menter, A. – Mendelsohn, A. – Shen, Y. K., et al.: Ustekinumab, a human interleukin 12/23 monoclonal antibody, for psoriatic arthritis: randomised, double-blind, placebo-controlled, crossover trial. *Lancet*, 2009, 373, s. 633–640.
- 3 Colina, M. – Cianco, G. – Khodeir, M. – Sferra S., et al.: De novo onset of arthritis in patients previously treated with efalizumab: an observational case series. *Clin Exp Rheumatol*, 2011, 29, s. 141.
- 4 <http://clinicaltrials.gov/ct2/show/NCT01645280>, vyhledáno 17. 12. 2012.
- 5 Sandborn, W. J. – Feagan, B. G. – Fedorak, R. N. – Scherl, E., et al.: A randomized trial of ustekinumab, a human interleukin-12/23 monoclonal antibody, in patients with moderate-to-severe Crohn's disease. *Gastroenterology*, 2008, 135, s. 1130–1141.
- 6 Segal, B. M. – Constantinescu, C. S. – Raychaudhuri, A. – Kim, L., et al.: Repeated subcutaneous injections of IL12/23 p40 neutralising antibody, ustekinumab, in patients with relapsing-remitting multiple sclerosis: a phase II, double-blind, placebo-controlled, randomised, dose-ranging study. *Lancet Neurol*, 2008, 7, s. 796–804.
- 7 <http://www.clinicaltrials.gov/ct2/show/study/NCT00955279>, vyhledáno 17. 12. 2012.

Léčba hypercholesterolemie při selhání monoterapie: význam fixní kombinace simvastatinu s ezetimibem

MUDr. Jiří Slíva, Ph.D. Ústavy farmakologie 2. a 3. LF UK, Praha

- 1 Kosoglou, T. – Meyer, I. – Veltri, E. P., et al.: Pharmacodynamic interaction between the new selective cholesterol absorption inhibitor ezetimibe and simvastatin. *Br J Clin Pharmacol*, 2002, 54, s. 309–319.
- 2 Ose, L. – Shah, A. – Davies, M. J., et al.: Consistency of lipid-altering effects of ezetimibe/simvastatin across gender, race, age, baseline low density lipoprotein cholesterol levels, and coronary heart disease status: results of a pooled retrospective analysis. *Curr Med Res Opin*, 2006, 22, s. 823–835.
- 3 Feldman, T. – Davidson, M. – Shah, A., et al.: Comparison of the lipid-modifying efficacy and safety profiles of ezetimibe coadministered with simvastatin in older versus younger patients with primary hypercholesterolemia: a post Hoc analysis of subpopulations from three pooled clinical trials. *Clin Ther*, 2006, 28, s. 849–859.
- 4 Abramson, B. L. – Benlian, P. – Hanson, M. E. – Lin, J. – Shah, A. – Ter-shakovec, A. M.: Response by sex to statin plus ezetimibe or statin monotherapy: a pooled analysis of 22,231 hyperlipidemic patients. *Lipids Health Dis*, 2011, 10, s. 146.
- 5 Davidson, M. H. – Maccubbin, D. – Stepanavage, M. – Strony, J. – Musliner, T.: Striated muscle safety of ezetimibe/simvastatin (Vytorin). *Am J Cardiol*, 2006, 97, s. 223–228.
- 6 Catapano, A. – Brady, W. E. – King, T. R. – Palmisano, J.: Lipid altering-efficacy of ezetimibe co-administered with simvastatin compared with rosuvastatin: a meta-analysis of pooled data from 14 clinical trials. *Curr Med Res Opin*, 2005, 21, s. 1123–1130.
- 7 Pearson, T. – Ballantyne, C. – Sisk, C. – Shah, A. – Veltri, E. – Maccubbin, D.: Comparison of effects of ezetimibe/simvastatin versus simvastatin versus atorvastatin in reducing C-reactive protein and low-density lipoprotein cholesterol levels. *Am J Cardiol*, 2007, 99, s. 1706–1713.
- 8 Guyton, J. R. – Betteridge, D. J. – Farnier, M., et al.: Achievement of recommended lipid and lipoprotein levels with combined ezetimibe/statin therapy versus statin alone in patients with and without diabetes. *Diab Vasc Dis Res*, 2011, 8, s. 160–172.
- 9 Mikhailidis, D. P. – Lawson, R. W. – McCormick, A. L., et al.: Comparative efficacy of the addition of ezetimibe to statin vs statin titration in patients with hypercholesterolemia: systematic review and meta-analysis. *Curr Med Res Opin*, 2011, 27, s. 1191–1210.
- 10 Baigent, C. – Landray, M. J. – Reith, C., et al.: The effects of lowering LDL cholesterol with simvastatin plus ezetimibe in patients with chronic kidney disease (Study of Heart and Renal Protection): a randomised placebo-controlled trial. *Lancet*, 2011, 377, s. 2181–2192.
- 11 van Nooten, F. – Davies, G. M. – Jukema, J. W. – Liem, A. H. – Yap, E. – Hu, X. H.: Economic evaluation of ezetimibe combined with simvastatin for the treatment of primary hypercholesterolemia. *Neth Heart J*, 2011, 19, s. 61–67.

Nové možnosti léčby kastračně rezistentního karcinomu prostaty

MUDr. Otakar Čapoun, FEBU Urologická klinika VFN a 1. LF UK, Praha

- 1 Center, M. M. – Jemal, A. – Lortet-Tieulent, J., et al.: International variation in prostate cancer incidence and mortality rates. *Eur Urol*, 2012, 61, s. 1079–1092.
- 2 Hwang, C.: Overcoming docetaxel resistance in prostate cancer: a perspective review. *Ther Adv Med Oncol*, 2012, 4, s. 329–340.
- 3 de Bono, J. S. – Oudard, S. – Ozguroglu, M., et al.: Prednisone plus cabazitaxel or mitoxantrone for metastatic castration-resistant prostate cancer progressing after docetaxel treatment: a randomised open-label trial. *Lancet*, 2010, 376, s. 1147–1154.
- 4 Sternberg, C. N. – Petrylak, D. P. – Sartor, O., et al.: Multinational, double-blind, phase III study of prednisone and either satraplatin or placebo in patients with castrate-refractory prostate cancer progressing after prior chemotherapy: the SPARC trial. *J Clin Oncol*, 2009, 27, s. 5431–5438.
- 5 Fizazi, K. – Scher, H. I. – Molina, A., et al.: Abiraterone acetate for treatment of metastatic castration-resistant prostate cancer: final overall

- survival analysis of the COU-AA-301 randomised, double-blind, placebo-controlled phase 3 study. *Lancet Oncol*, 2012, 13, s. 983–992.
- 6 Ryan, C. J. – Smith, M. R. – de Bono, J. S., et al.: Interim analysis (IA) results of COU-AA-302, a randomized, phase III study of abiraterone acetate in chemotherapy-naïve patients with metastatic castration-resistant prostate cancer. *J Clin Oncol*, 2012, 30, abstrakt LBA4518.
 - 7 Tran, C. – Ouk, S. – Clegg, N. J. – Chen, Y., et al.: Development of a second-generation antiandrogen for treatment of advanced prostate cancer. *Science*, 2009, 324, s. 787–790.
 - 8 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.
 - 9 Saad, F. – Hotte, S. – North, S., et al.: Randomized phase II trial of Cus-tirsen (OGX-011) in combination with docetaxel or mitoxantrone as second-line therapy in patients with metastatic castrate-resistant prostate cancer progressing after first-line docetaxel: CUOG trial P-06c. *Clin Cancer Res*, 2011, 17, s. 5765–5773.
 - 10 Adamo, V. – Noto, L. – Franchina, T., et al.: Emerging targeted therapies for castration-resistant prostate cancer. *Front Endocrinol (Lausanne)*, 2012, 3, s. 73.
 - 11 Parker, C. – Heinrich, D. – O’Sullivan, J. M., et al.: Overall survival benefit and safety profile of radium-223 chloride, a first-in-class alpha-pharmaceutical: Results from a phase III randomized trial (ALSYMPCA) in patients with castration-resistant prostate cancer (CRPC) with bone metastases. *J Clin Oncol*, 2012, 30, abstrakt 8.
 - 12 Kim, J. J. – Keizman, D. – Denmeade, S. R. – Antonarakis, E. S.: The unfolding treatment landscape for men with castration-resistant prostate cancer. *Clin Investig (Lond)*, 2011, 1, s. 1533–1544.

Léčba pokročilého melanomu ipilimumabem

MUDr. Ivana Krajsová Dermatovenerologická klinika VFN a 1. LF UK, Praha

- 1 Garbe, C. – Peris, K. – Hauschild, A. – Saiag, P., et al.: Diagnosis and treatment of melanoma: European consensus-based interdisciplinarity guideline. *Eur J Cancer*, 2010, 46, s. 270–283.
- 2 Kirkwood, J. M. – Tarhini, A. A. – Panelli, C. M. – Moschos, J. S. – Gogas, J. H.: Next generation of immunotherapy for melanoma. *J Clin Oncol*, 2008, 26, s. 3445–3455.
- 3 Ridolfi, L. – Ridolfi, R.: Anti-CTLA-4 therapy in melanoma: role of ipilimumab. *Expert Rev Dermatol*, 2009, 4 (3), s. 199–210.
- 4 Patel, S. P. – Woodman, S. E.: Profile of ipilimumab and its role in the treatment of metastatic melanoma. *Drug Design, Development and Therapy*, 2011, 5, s. 489–495.
- 5 Hodi, F. S. – O’Day, S. J. – McDermott, D. F., et al.: Improved survival with ipilimumab in patients with metastatic melanoma. *N Engl J Med*, 2010, 363, s. 711–723.
- 6 Robert, C. – Thomas, L. – Bondarenko, I., et al.: Ipilimumab plus Dacarbazine for previously untreated metastatic melanoma. *N Engl J Med*, 2011, 364, s. 2517–2526.
- 7 Thompson, J. A. – Hamid, O., et al.: Ipilimumab in treatment-naïve and previously treated patients with metastatic melanoma: retrospective analysis of efficacy and safety data from a phase II trial. *J Immunother*, 2012, 35 (1), s. 73–77.
- 8 Wolchok, J. D. – Hoos, A. – O’Day, S. – Weber, J. S., et al.: Guidelines for the evaluation of immune therapy activity in solid tumors: immune-related response criteria. *Clin Cancer Res*, 2009, 15 (23), s. 7412–7420.
- 9 Andrews, S. – Holden, R.: Characteristics and management of immune-related adverse effects associated with ipilimumab, a new immunotherapy for metastatic melanoma. *Cancer Management and Res*, 2011, 4, s. 299–307.

Nástup genových terapií v zemích Evropské unie

prof. Ing. Jaroslav Petr, DrSc. Výzkumný ústav živočišné výroby, Praha

- 1 Gruber, K.: Europe gives gene therapy the green light. *Lancet*, 2012, 380, s. 10.
- 2 Gaudet, D. – de Wal, J. – Tremblay, K. – Déry, S. – Deventer, S. – Freidig, A. – Brisson, D. – Méthot, J.: Review of the clinical development of alipogene tiparvovec gene therapy for lipoprotein lipase deficiency. *Atherosclerosis Supplements*, 2010, 11, s. 55–60.
- 3 Blaese, R. M. – Culver, K. W. – Miller, A. D., et al.: T lymphocyte-directed gene therapy for ADA-SCID: initial trial results after 4 years. *Science*, 1995, 270, s. 475–480.
- 4 Marsal, E.: FDA halts all gene therapy trials at Penn. *Science*, 2000, 287, s. 565–567.
- 5 Cavazzana-Calvo, M. – Hacein-Bey, S. – de Saint Basile, G. – Gross, F. – Yvon, E. – Nusbaum, P. – Selz, F. – Hue, C. – Certain, S. – Tasanova, J.-L. P. – Le Deist, F. – Fischer, A.: Gene therapy of human severe combined immunodeficiency (SCID)-X1 disease. *Science*, 2000, 288, s. 669–672.
- 6 Couzin, J. – Kaiser, J.: As Gelsinger case ends, gene therapy suffers another blow. *Science*, 2005, 307, s. 1028.
- 7 Gaspar, H. B. – Cooray, S. – Gilmour, K. S. – Parsley, K. L. – Adams, S. – Howe, S. J. – Al Ghonaium, A. – Bayford, J. – Brown, L. – Davies, E. G. – Kinnon, C. – Thrasher, A. J.: Long-term persistence of a polyclonal T cell repertoire after gene therapy for X-linked severe combined immunodeficiency. *Science Translational Medicine*, 2011, 3, 97ra79.
- 8 Gaspar, H. B. – Cooray, S. – Gilmour, K. S. – Parsley, K. L. – Adams, S. – Howe, S. J. – Al Ghonaium, A. – Bayford, J. – Brown, L. – Davies, E. G. – Kinnon, C. – Thrasher, A. J.: Hematopoietic stem cell gene therapy for adenosine deaminase-deficient severe combined immunodeficiency leads to long-term immunological recovery and metabolic correction. *Science Translational Medicine*, 2011, 3, 97ra80.
- 9 Nathwani, A. C. – Tuddenham, E. G. D. – Rangarajan, S., et al.: Adenovirus-associated virus vector-mediated gene transfer in hemophilia B. *New England Journal of Medicine*, 2011, 365, s. 2357–2365.
- 10 Jacobson, S. G. – Cideciyan, A. V. – Ratnakaram, R., et al.: Gene therapy for Leber congenital amaurosis caused by RPE65 mutations. *Archives of Ophthalmology*, 2012, 130, s. 9–24.
- 11 Pearson, S. – Jia, H. – Kandachi, K.: China approves first gene therapy. *Nature Biotechnology*, 2004, 22, s. 3–4.