

ACTA MEDICINAE 2/2014 Kompletní literatura

Diabetologie Kardiologie

- 2 Úskalí interpretace glykovaného hemoglobinu HbA_{1c}**
MUDr. Denisa Janíčková Žďárská, Ph.D. | prof. MUDr. Milan Kvapil, CSc., MBA Interní klinika FN Motol a 2. LF UK, Praha
- 2 Nový mechanismus léčby DM: glifloziny, inhibitory SGLT2**
prof. MUDr. Milan Kvapil, CSc., MBA Interní klinika FN Motol a 2. LF UK, Praha
- 2 Krátkodobu pôsobiace a dlhodobu pôsobiace agonisty receptora pre GLP-1**
MUDr. Vladimír Uličiansky Via medica, s. r. o., Košice | MUDr. Zbyněk Schroner, Ph.D. SchronerMed, s. r. o., Košice
- 3 Místo premixovaných inzulinů v léčbě diabetu 2. typu**
MUDr. Tomáš Edelsberger Diabetologická ordinace pro dospělé, Krnov
- 3 Využití nových možností technologie pro kvalitnější monitoraci glykemie**
MUDr. Radomíra Kožnarová, CSc.
Klinika diabetologie, Centrum diabetologie, Institut klinické a experimentální medicíny, Praha
- 3 Význam ovlivnění variability glykemie pro prevenci komplikací diabetu**
prof. MUDr. Martin Haluzík, DrSc. | MUDr. Miloš Mráz, Ph.D. 3. interní klinika 1. LF UK a VFN, Praha
- 4 Nová diagnostická kritéria gestačního diabetu**
MUDr. Kateřina Andělová Ústav pro péči o matku a dítě, Centrum pro výzkum diabetu, metabolismu a výživy 3. LF UK, Praha
- 4 Léčba diabetiků 2. typu inzulinem degludek**
MUDr. Eva Račická Diabetologická a interní ambulance, Ostrava
- 5 Inzulin degludek v léčbě pacientů s diabetes mellitus 1. typu**
MUDr. Milan Flekač, Ph.D. 3. interní klinika endokrinologie a metabolismu 1. LF UK a VFN, Praha
- 5 Farmakologická léčba akutního srdečního selhání**
prof. MUDr. Jindřich Špinar, CSc., FESC | MUDr. Ondřej Ludka, Ph.D. | MUDr. Jiří Pařenica
Interní kardiologická klinika, LF MU a FN Brno
prof. MUDr. Lenka Špinarová, Ph.D. | prof. MUDr. Jiří Vítověc, CSc., FESC
I. interní kardioangiologická klinika, LF MU a FN u svaté Anny, Brno
- 5 Bradykardizující léky u nemocných s chronickým srdečním selháním**
prof. MUDr. Jaromír Hradec, CSc., FESC
3. interní klinika 1. LF UK a VFN, Praha | interní kardioangiologická klinika, LF MU a FN u svaté Anny, Brno
- 6 Kombinace ACE inhibitorů a sartanů – komu a kdy?**
prof. MUDr. Jiří Vítověc, CSc., FESC 1. interní kardio-angiologická klinika LF MU a FN u sv. Anny v Brně
prof. MUDr. Jindřich Špinar, CSc., FESC Interní kardiologická klinika LF MU a FN Brno
- 6 Renální denervace u rezistentní hypertenze: výsledky klinických studií**
prof. MUDr. Jiří Widimský jr., CSc. 3. Interní klinika – Centrum pro hypertenzii VFN a 1. LF UK, Praha
- 6 Natriuretické peptidy u akutního srdečního selhání**
MUDr. Jan Krupička | MUDr. Tomáš Janota 3. interní klinika 1. LF UK a VFN Praha
- 7 Co očekáváme od antikoagulační léčby v roce 2014**
prof. MUDr. Jan Kvasnička, CSc. Trombotické centrum, ÚLBLD, VFN a 1. LF UK, Praha
- 7 Klinické zkušenosti s léčbou flebotrombózy přípravkem Xarelto (rivaroxabanem)**
doc. MUDr. Tomáš Kvasnička, CSc. Trombotické centrum, ÚLBLD, VFN a 1. LF UK, Praha
- 7 Fixní kombinace bisoprolol – amlodipin**
MUDr. Eva Kociánová I. interní klinika – kardiologická FN Olomouc
- 8 Vysoké dávky statinů po akutním koronárním syndromu**
MUDr. Jan Piňha, CSc. Laboratoř pro výzkum aterosklerózy, Centrum experimentální medicíny, IKEM Praha
- 8 Observační studie pacientů léčených lerkanidipinem v podmínkách běžné klinické praxe v České republice**
PharmDr. Josef Suchopář Imfopharm, a. s. | MUDr. Jiří Slíva, Ph.D. Ústavy farmakologie 2. a 3. LF UK, Praha,
interní klinika 1. LF UK a VFN, Praha | prof. MUDr. Miroslav Souček, CSc. 2. interní klinika LF MU a FN u sv. Anny Brno

Úskalí interpretace glykovaného hemoglobinu HbA_{1c}

MUDr. Denisa Janíčková Žďárská, Ph.D. | prof. MUDr. Milan Kvapil, CSc., MBA

Interní klinika FN Motol a 2. LF UK, Praha

- 1 Koenig, R. J., et al.: Correlation of glucose regulation and hemoglobin A1c in diabetes mellitus. *N Engl J Med*, 1976, 295, s. 417–420.
- 2 Nathan, D. M., et al.: The clinical information value of the glycosylated hemoglobin assay. *Diabetes Care*, 1987, 10, s. 225–237.
- 3 Rohlfing, C. L., et al.: Defining the relationship between plasma glucose and HbA1c, analysis of glucose profiles and HbA1c in the Diabetes Control and Complications Trial. *Diabetes Care*, 2002, 25, s. 275–278.
- 4 Hinzenmann, R., et al.: What do we need beyond hemoglobin A1c to get the complete picture of glycemia in people with diabetes? *Int J Med Sci*, 2012, 9, s. 665–681.
- 5 Standardy pro léčbu diabetes mellitus, http://www.diab.cz/dokumenty/sledovani_2012.pdf, vyhledáno 24. 2. 2014.

Nový mechanismus léčby DM: glifloziny, inhibitory SGLT2

prof. MUDr. Milan Kvapil, CSc., MBA Interní klinika FN Motol a 2. LF UK, Praha

- 1 Abdul-Ghani, M. A. – Bortin, L. – DeFronzo, R. A.: Efficacy and safety of SGLT2 inhibitors in the treatment of type 2 diabetes mellitus. *Curr Diab Rep*, 2012, 12, s. 230–238.
- 2 Anderson, S. L. – Marrs, J. C.: Dapagliflozin for the treatment of type 2 diabetes. *Ann Pharmacother*, 2012, 46, s. 590–598.
- 3 Bolinder, J., et al.: Effects of dapagliflozin on body weight, total fat mass, and regional adipose tissue distribution in patients with type 2 diabetes mellitus with inadequate glycemic control on metformin. *J Clin Endocrinol Metab*, 2012, 97, s. 1020–1031.
- 4 Clar, C. – Gill, J. A. – Court, R. – Waugh, N.: Systematic review of SGLT2 receptor inhibitors in dual or triple therapy in type 2 diabetes. *BMJ Open*, 2012, 2, s. e001007.
- 5 Foote, C. – Peckovic, V. – Neal, B.: Effects of SGLT2 inhibitors on cardiovascular outcomes. *Diab Vasc Dis Res*, 2012, 9, s. 117–123.
- 6 Kvapil, M.: Inhibitory SGLT2: Nová cesta k léčbě diabetu. In: Kvapil, M. (eds.): *Diabetologie 2010*. Triton, Praha, 2010.
- 7 Kvapil, M.: Glifloziny: Inhibitory SGLT 2. In: Kvapil, M. (eds.): *Diabetologie 2013*. Triton, Praha, 2013.
- 8 Marks, J., et al.: Diabetes increases facilitative glucose uptake and GLUT2 expression at the rat proximal tubule brush border membrane. *J Physiol*, 2003, 553, s. 137–145.
- 9 Musso, G., et al.: A novel approach to control hyperglycemia in type 2 diabetes: sodium glucose co-transport (SGLT) inhibitors: systematic review and meta-analysis of randomized trials. *Ann Med*, 2012, 44, s. 375–393.
- 10 Meng, W., et al.: Discovery of dapagliflozin: a potent, selective renal sodium-dependent glucose cotransporter 2 (SGLT2) inhibitor for the treatment of type 2 diabetes. *J Med Chem*, 2008, 51, s. 1145–1149.
- 11 Nauck, M. A., et al.: Dapagliflozin versus glipizide as add-on therapy in patients with type 2 diabetes who have inadequate glycemic control with metformin: a randomized, 52-week, double-blind, active-controlled noninferiority trial. *Diabetes Care*, 2011, 34, s. 2015–2022.
- 12 Rosenstock, J., et al.: Effects of dapagliflozin, an SGLT2 inhibitor, on HbA1c, body weight, and hypoglycemia risk in patients with type 2 diabetes inadequately controlled on pioglitazone monotherapy. *Diabetes Care*, 2012, 35, s. 1473–1478.
- 13 Shepherd, P. R. – Kahn, B. B.: Glucose transporters and insulin action. *N Engl J Med*, 1999, 341, s. 248–259.
- 14 Washburn, W. N.: Sodium glucose co-transporter 2 (SGLT2) inhibitors: novel antidiabetic agents. *Expert Opin Ther Pat*, 2012, 22, s. 483–494.
- 15 Whaley, J., et al.: Dapagliflozin, a selective SGLT2 inhibitor, improves glucose homeostasis in normal and diabetic rats. *Diabetes*, 2007, A149.
- 16 Wilding, J. P., et al.: Dapagliflozin in patients with type 2 diabetes receiving high doses of insulin: efficacy and safety over 2 years. *Diabetes Obes Metab*, 2013, PubMed PMID: 23911013.
- 17 Wright, E. M.: Renal Na⁺-glucose cotransporters. *Am J Physiol*, 2001, 280, s. F10–F18.
- 18 Zambrowicz, B., et al.: LX4211, a dual SGLT1/SGLT2 inhibitor, improved glycemic control in patients with type 2 diabetes in a randomized, placebo-controlled trial. *Clin Pharmacol Ther*, 2012, 92, s. 158–169.
- 19 Zhang, M. – Zhang, L. – Wu, B. – Song, H. – An, Z. – Li, S.: Dapagliflozin treatment for type 2 diabetes: a systematic review and meta-analysis of randomized controlled trials. *Diabetes Metab Res Rev*, 2013, PubMed PMID: 24115369.

Krátkodobo pôsobiace a dlhodobo pôsobiace agonisty receptora pre GLP-1

MUDr. Vladimír Uličiansky Via medica, s. r. o., Košice

MUDr. Zbyněk Schroner, Ph.D. SchronerMed, s. r. o., Košice

- 1 Inzucchi, S. E. – Bergenfelz, R. M. – Buse, J. B., et al.: Management of Hyperglycemia in Type 2 Diabetes. A Patient-Centered Approach. Position Statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetes Care*, 2012, 35, s. 1364–1379.
- 2 American Association of Clinical Endocrinologists' (AACE) comprehensive diabetes management algorithm 2013 consensus statement. *Endocrine practice*, 2013, 19 (dopl. 2), s. 1–48.
- 3 Clinical Guidelines Task Force. Global Guideline for Type 2 Diabetes. International Diabetes Federation, 2012, s. 117.
- 4 Schroner, Z. – Uličiansky, V.: Liečba diabetes mellitus 2. typu založená na účinku inkretínov (2. rozšírené vydanie). SchronerMED, 2011, s. 111.
- 5 Haluzík, M. – Svačina, Š.: Inkretínová liečba diabetu. *Mladá fronta*, 2010, s. 135.
- 6 Uličiansky, V. – Schroner, Z. – Galajda, P. – Mokáň, M.: *Diabetes mellitus v zrelem veku*. Quick Print, 2013, s. 171.
- 7 Kahn, S. E. – Cooper, M. E. – Del Prato, S.: Pathophysiology and treatment of type 2 diabetes: perspectives on the past, present, and future. *Lancet*, 2013, [http://dx.doi.org/10.1016/S0140-6736\(13\)60701-0](http://dx.doi.org/10.1016/S0140-6736(13)60701-0).
- 8 Tahraní, A. A. – Bailey, C. – Del Prato, S. – Barnett, A.: Management of type 2 diabetes: new and future developments in treatment. www.thelancet.com, 2011, 378, s. 182–197.
- 9 Gerich, J.: Pathogenesis and management of postprandial hyperglycemia: role of incretin-based therapies. *Journal of General Medicine*, 2013, 6, s. 877–895.
- 10 Marathe, C. S. – Rayner, C. H. K. – Jones, K. L. – Horowitz, M.: Relationships between gastric emptying, postprandial glycemia, and incretin hormones. *Diabetes Care*, 2013, 36, s. 1396–405.
- 11 Ridge, T., et al.: Comparison of safety and tolerability with continuous (exenatide once weekly) or intermittent (exenatide twice daily) GLP-1 receptor agonism in patients with type 2 diabetes. *Diabetes, Obesity and Metabolism*, 2012, 14, s. 1097–1103.
- 12 Drucker, D. J. – Buse, J. B. – Taylor, K., et al.: Exenatide once weekly versus twice daily for the treatment of type 2 diabetes: a randomised, open-label, non-inferiority study. *Lancet*, 2008, 372, s. 1240–1250.
- 13 Buse, J. B. – Nauck, M. – Forst, T., et al.: Exenatide once weekly versus liraglutide once daily in patients with type 2 diabetes (DURATION-6): a randomised, open-label study. *Lancet*, 2013, 381, s. 117–124.
- 14 Buse, J. B. – Rosenstock, J. – Sesti, G., et al.: Liraglutide once daily versus exenatide twice a day for type 2 diabetes. A 26 week randomised, parallel-group, multinational, open-label trial (LEAD-6). *Lancet*, 2009, 374, s. 39–47.
- 15 Barnett, A. H.: The role of GLP-1 mimetics and basal insulin analogues in type 2 diabetes mellitus: guidance from studies of liraglutide. *Diabetes, Obesity and Metabolism*, 2012, 14, s. 304–314.
- 16 Buse, J. B. – Rosenstock, J. – Sesti, G., et al.: Liraglutide once daily versus exenatide twice a day for type 2 diabetes. A 26 week randomised, parallel-group, multinational, open-label trial (LEAD-6). *Lancet*, 2009, 374, s. 39–47.
- 17 Fineman, M. S. – Cirincione, B. B. – Maggs, D. – Diamant, M.: GLP-1 based therapies: differential effects on fasting and postprandial glucose. *Diabetes Obes Metab*, 2012, 14, s. 675–688.
- 18 Meier, J. J.: GLP-1 receptor agonists for individualized treatment of type 2 diabetes mellitus. *Nat Rev Endocrinol*, 2012, 8, s. 728–742.
- 19 Vidal, J.: Lixisenatide—a new glucagon-like peptide 1 receptor agonist in the treatment of Type 2 diabetes. *European Endocrinology*, 2013, 9, s. 76–81.
- 20 Honka, M.: Lixisenatide. In: Kvapil, M. (ed.): *Diabetologie*, 2013. Triton, 2013, s. 160–171.
- 21 Aronson, R.: Optimizing glycemic control: lixisenatide and basal insulin in combination therapy for the treatment of Type 2 diabetes mellitus. *Expert Rev Clin Pharmacol*, 2013, 6, s. 603–612.
- 22 Owens, D. R. – Monnier, L. – Boli, G. B.: Differential effects of GLP-1 receptor agonists on components of dysglycaemia in individuals with type 2 diabetes mellitus. *Diabetes & Metabolism*, 2013, 39, s. 485–496.
- 23 Kapitza, C. – Forst, T. – Coester, H. V., et al.: Pharmacodynamic characteristics of lixisenatide once daily versus liraglutide once daily in patients with type 2 diabetes insufficiently controlled on metformin. *Diabetes, Obesity and Metabolism*, 2013, doi: 10.1111/dom.12076, s. 1–8.
- 24 Seino, Y., et al.: Randomized, double-blind, placebo-controlled trial of the once daily GLP-1 receptor agonist lixisenatide in Asian patients with type 2 diabetes insufficiently controlled on basal insulin with or without a sulfonylurea (GetGoal-L-Asia). *Diabetes, Obesity and Metabolism*, 2012, 14, s. 910–917.
- 25 Informácie z Európskej liekovej agentúry (EMA) a Súhrny charakteristických vlastností liekov (SPC), ktoré boli schválené v rámci Európskej únie. Dostupné z: <http://www.ema.europa.eu/ema>, vyhľadané 28. 2. 2013.
- 26 Prebiehajúce klinické štúdie. Dostupné z: <http://www.clinicaltrials.gov>, vyhľadané 28. 1. 2014.
- 27 Fábryová L.: Farmakologická liečba obézneho diabetika 2. typu. In: Krahulec, B. – Fábryová, L. – Holéček, P. – Klimeš, I., et al.: *Klinická obezitológia*. Facta Medica, 2013, s. 191–200.
- 28 Burgmaier, M. – Heinrich, C. – Marx, N.: Cardiovascular effects of GLP-1 and GLP-1 based therapies: implications for the cardiovascular continuum in diabetes. *Diabet Med*, 2013, 30, s. 289–299.
- 29 Pozzilli, P. – Leslie, R. D. – Chan, J. – DeFronzo, R. – Monnier, L. – Raz, I. – Del Prato, S.: The A1C and ABCD of glycaemia management in type 2 diabetes: a physician's personalized approach. *Diabetes Metab Res Rev*, 2010, 26, s. 239–244.
- 30 Uličiansky, V. – Schroner, Z. – Galajda, P. – Némethyová, Z. – Mokáň, M.: Algoritmus liečby diabetes mellitus 2. typu v klinickej praxi. *Diabetes a Obezita*, 2011, 11, s. 9–32.
- 31 Horowitz, H. – Rayner, C. K. – Jones, K. L.: Mechanisms and clinical efficacy of lixisenatide for the management of Type 2 diabetes. *Adv Ther*, 2013, 30, s. 81–101.

Místo premixovaných inzulinů v léčbě diabetu 2. typu

MUDr. Tomáš Edelsberger Diabetologická ordinace pro dospělé, Krnov

- 1 Kvapil, M. – Doležalová, L.: Léčba inzulínem ve vyšším věku. *Med Pro Praxi*, 2007, 4, s. 497–500.
- 2 Kvapil, M.: Premixované inzuliny v léčbě diabetu. *Remedia*, 05/2013.
- 3 Philip Levy, M. D. – FACE: Insulin analogs or premixed insulin analogs in combination with oral agents for treatment of Type 2 diabetes. *Med Gen Med*, 2007, 9, s. 12.
- 4 Owens, D. R.: Stepwise intensification of insulin therapy in Type 2 diabetes management—exploring the concept of the basal-plus approach in clinical practice. *Diabet Med*, 2013, 30, s. 276–288, doi: 10.1111/dme.12019.
- 5 Ilag, L. L. – Kerr, L. – Malone, J. K. – Tan, M. H.: Prandial premixed insulin analogue regimens versus basal insulin analogue regimens in the management of Type 2 diabetes: an evidence-based comparison. *Clin Ther*, 2007, 29, s. 1254–1270.
- 6 Giuliano, D. – Tracz, M. – Shah, S. – Calle-Pascual, A. – Mistodice, C. – Duarte, R. – Sari, R. – Woo, V. – Jiletkovic, A. O. – Deinhard, J. – Wille, S. A. – Kiljanski, J.: Initiation and gradual intensification of premixed insulin lispro therapy versus Basal (+/-) mealtime insulin in patients with Type 2 diabetes eating light breakfasts. *Diabetes Care*, 2014, 37, s. 372–380, doi: 10.2373/dc12-2704, Epub 29. 10. 2013.
- 7 Riddle, M. C. – Rosenstock, J. – Vlajnic, A. – Gao, L.: Randomized, 1-year comparison of three ways to initiate and advance insulin for Type 2 diabetes: twice-daily premixed insulin versus basal insulin with either basal-plus one prandial insulin or basal-bolus up to three prandial injections. *Diabetes Obes Metab*, 2013, doi: 10.1111/dom.12225 (Epub před tiskem).
- 8 Elizarova, S. – Galstyan, G. R. – Wolfenbuttel, B. H.: Role of premixed insulin analogues in the treatment of patients with Type 2 diabetes mellitus: A narrative review. *J Diabetes*, 2014, 6, s. 100–110.
- 9 Buse, J. B. – Wolfenbuttel, B. H. – Herman, W. H., et al.: DURABILITY of basal versus lispro mix 75/25 insulin efficacy (DURABLE) trial 24-week results: Safety and efficacy of insulin lispro mix 75/25 versus insulin glargine added to oral antihyperglycemic drugs in patients with type 2 diabetes. *Diabetes Care*, 2009, 32, s. 1007–1013.
- 10 Buse, J. B. – Wolfenbuttel, B. H. – Herman, W. H., et al.: The DURABILITY of Basal versus Lispro mix 75/25 insulin Efficacy (DURABLE) trial: Comparing the durability of lispro mix 75/25 and glargine. *Diabetes Care*, 2011, 34, s. 249–255.
- 11 Jacober, S. J. – Scism-Bacon, J. L. – Zagar, A. J.: A comparison of intensive mixture therapy with basal insulin therapy in insulin-naïve patients with type 2 diabetes receiving oral antidiabetes agents. *Diabetes Obes Metab*, 2006, 8, s. 448–455.
- 12 Haluzík, M., et al.: *Praktická léčba diabetu*. Praha, Mladá Fronta, 2009.
- 13 Janka, H. U. – Plewe, G. – Riedle, M. C. – Kliebe-Frisch, C. – Schweizer, M. A. – Yki-Jarvinen, H.: Comparison of basal insulin added to oral agents versus twice-daily premixed insulin as initial insulin therapy for Type 2 diabetes. *Diabetes Care*, 2005, 28, s. 254–259.
- 14 Malone, J. K. – Kerr, L. F. – Campaigne, B. N. – Sachson, R. A. – Holcombe, J. H.: Combined therapy with insulin lispro Mix 75/25 plus metformin or insulin glargine plus metformin: a 16-week, randomized, open-label, crossover study in patients with type 2 diabetes beginning insulin therapy. *Clin Ther*, 2004, 26, s. 2034–2044.
- 15 Malone, J. K. – Bai, S. – Campaigne, B. N. – Reviriego, J. C. – Augendre-Ferrante, B.: Twice-daily pre-mixed insulin rather than basal insulin therapy alone results in better overall glycaemic control in patients with Type 2 diabetes. *Diabet Med*, 2005, 22, s. 374–381.
- 16 Holman, R. R. – Farmer, A. J. – Davies, M. J. – Levy, J. C. – Darbyshire, J. L. – Keenan, J. F. – Paul, S. K. – 4-T Study Group: Three-year efficacy of complex insulin regimens in Type 2 diabetes. *N Engl J Med*, 2009, 361, s. 1736–1747, Epub 22. 10. 2009.
- 17 Luzio, S. – Dunseath, G. – Peter, R. – Pauvadav, V. – Owens, D. R.: Comparison of the pharmacokinetics and pharmacodynamics of biphasic insulin aspart and insulin glargine in people with Type 2 diabetes. *Diabetologia*, 2006, 49, s. 1163–1168.
- 18 Inzuchi, S. E., et al.: Management of hyperglycemia in Type 2 diabetes: a patient-centered approach: position statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetes Care*, 2012, 35, s. 1364–1379.

Využití nových možností technologie pro kvalitnější monitoraci glykemie

MUDr. Radomíra Kožnarová, CSc.

Klinika diabetologie, Centrum diabetologie, Institut klinické a experimentální medicíny, Praha

- 1 Barry, H. G.: Factors affecting blood glucose monitoring: source of errors in measurement. *J Diabetes Sci Technol*, 2009, 3, s. 903–913.
- 2 Bergenstal, R. M. – Tamborlane, W. V., et al.: for the Star 3 Study Group. Effectiveness of sensor-augmented pump therapy in Type-1 diabetes. *N Engl J Med*, 2010, 363, s. 311–320.
- 3 Bode, B. – Gross, K. – Rikalo, N. – Schwarz, S. – Wahl, T. – Page, C. – Gross, T. – Mastrototaro, J.: Alarms based on real-time sensor glucose values alert patients to hypo- and hyperglycaemia: the Guardian continuous monitoring system. *Diabetes Technol Ther*, 2004, 2, s. 105–113.
- 4 Brož, J.: Kontinuální monitoring glykemie: Přehled přístrojů, indikace, efektivita a přenosný metod. In: *Technologie v diabetologii*, Galén, 2010, s. 142–152.
- 5 Danne, T. – Kordonouri, O. – Holder, M., et al.: Prevention of hypoglycemia by using low glucose suspend function in sensor-augmented pump therapy. *Diabetes Technol Ther*, 2011, 13, s. 1129–1134.
- 6 Deiss, D. – Bolinder, J. – Riveline, J. P., et al.: Improved glycemic control in poorly controlled patients with type 1 diabetes using real-time continuous glucose monitoring. *Diabetes Care*, 2006, 29, s. 2730–2732.
- 7 Fineberg, S. E. – Bergenstal, R. M. – Bernstein, R. M. – Laffel, L. M. – Schwarz, S. L.: Use of an automatic device for alternative site blood glucose monitoring. *Diabetes Care*, 2001, 24, s. 1217–1220.
- 8 Freckmann, G., et al.: System accuracy evaluation of 43 blood glucose monitoring systems for self-monitoring of blood glucose according to DIN EN ISO 15197. *J Diabetes Sci Technol*, 2012, 6, s. 1060–1075.
- 9 Garg, S. – Zisser, H. – Schwartz, S. – Bailey, T. – Kaplan, R. – Ellis, S. – Jovanovic, L.: Improvement in glycaemic excursions with a transcutaneous, real-time continuous glucose sensor. *Diabetes Care*, 2006, 29, s. 44–50.
- 10 Jirkovská, A.: Základní zásady kontinuální monitorace glykemie – pomohou nám v kompenzaci diabetu? *Kazuistiky v diabetologii*, 2011, 4, s. 17–20.
- 11 JDRF Continuous Glucose Monitoring Study Group – Tamborlane, W. V. – Beck, R. W. – Bode, B. W., et al.: Continuous glucose monitoring and intensive treatment of Type 1 diabetes. *N Engl J Med*, 2008, 359, s. 1464–1476.
- 12 Jungheim, K. – Koschinski, T.: Glucose monitoring at the arm. Risky delays of hypoglycemia and hyperglycemia detection. *Diabetes Care*, 2002, 25, s. 956–960.
- 13 Kerr, D. – Hoogma, R. P. L. M. – Buhr, A. – Petersen, B. – Storms, F. E. M. G.: Multicenter user evaluation of ACCU-CHEK Combo, an integrated system for continual subcutaneous insulin infusion. *J Diabetes Sci Technol*, 2010, 4, s. 1400–1407.
- 14 Klonoff, D.: Continuous Glucose monitoring. Roadmap for 21st century diabetes therapy. *Diabetes Care*, 2005, 28, s. 1231–1239.
- 15 Koschinski, T. – Junghheim, K. – Heineman, L.: Glucose sensor and the AST like phenomenon: relationship between rapid blood glucose changes and glucose sensor signals. *Diabetes Technol Ther*, 2003, 5, s. 829–842.
- 16 Maia, F. F. – Araújo, L. R.: Efficacy of continuous glucose monitoring system (CGMS) to detect postprandial hyperglycemia and unrecognized hypoglycemia in Type 1 diabetic patients. *Diabetes Res Clin Pract*, 2007, 75, s. 30–34.
- 17 Rccah, D.: Incremental value of continuous glucose monitoring when starting pump therapy in patients with poorly controlled Type 1 diabetes. *Diabetes Care*, 2009, 32, s. 2245–2250.
- 18 Rewers, M. – Pihoker, C. – Donaghue, K., et al.: Assessment and monitoring of glycemic control. *Pediatr Diabetes*, 2009, 10, s. 71–81.
- 19 The Juvenile Diabetes Research Foundation Continuous Glucose Monitoring Study Group: Continuous glucose monitoring and intensive treatment of Type 1 diabetes. *N Engl J Med*, 2008, 359, s. 1464–1476.
- 20 Wenthol, I. – Maran, A. – Masurel, N. – Heine, R. – Hoekstra, J. – De Vries, J.: Nocturnal hypoglycemia in Type 1 diabetic patients, assessed with continuous glucose monitoring: frequency, duration and associations. *Diabet Med*, 2007, 24, s. 527–532.

Význam ovlivnění variability glykemie pro prevenci komplikací diabetu

prof. MUDr. Martin Haluzík, DrSc. | MUDr. Miloš Mráz, Ph.D. 3. interní klinika 1. LF UK a VFN, Praha

- 1 O’Rahilly, S.: Science, medicine, and the future. Non-insulin dependent diabetes mellitus: the gathering storm. *BMJ*, 1997, 314, s. 955–959.
- 2 Grundy, S. M.: Cardiovascular and metabolic risk factors: how can we improve outcomes in the high-risk patient? *The American Journal of Medicine*, 2007, 120, s. 53–58, diskuze S9.
- 3 Holman, R. R. – Paul, S. K. – Bethel, M. A., et al.: 10-year follow-up of intensive glucose control in type 2 diabetes. *The New England Journal of Medicine*, 2008, 359, s. 1577–1589.
- 4 Siegelar, S. E. – Holleman, F. – Hoekstra, J. B. – DeVries, J. H.: Glucose variability; does it matter? *Endocrine Reviews*, 2010, 31, s. 171–182.
- 5 Bragg, J. – Adamson, U. – Backlund, L. B., et al.: Can glycaemic variability, as calculated from blood glucose self-monitoring, predict the development of complications in type 1 diabetes over a decade? *Diabetes & Metabolism*, 2008, 34, s. 612–616.
- 6 Picconi, F. – Di Flaviani, A. – Malandrucco, I., et al.: Impact of glycemic variability on cardiovascular outcomes beyond glycated hemoglobin. Evidence and clinical perspectives. *Nutrition, Metabolism, and Cardiovascular Diseases*: *NMCD*, 2012, 22, s. 691–696.
- 7 Quagliari, L. – Piconi, L. – Assaloni, R., et al.: Intermittent high glucose enhances apoptosis related to oxidative stress in human umbilical vein endothelial cells: the role of protein kinase C and NAD(P) H-oxidase activation. *Diabetes*, 2003, 52, s. 2795–2804.
- 8 Piconi, L. – Quagliari, L. – Assaloni, R., et al.: Constant and intermittent high glucose enhances endothelial cell apoptosis through

- mitochondrial superoxide overproduction. *Diabetes/Metabolism Research and Reviews*, 2006, 22, s. 198–203.
- 9 Takeuchi, A. – Throckmorton, D. C. – Brodgen, A. P., et al.: Periodic high extracellular glucose enhances production of collagens III and IV by mesangial cells. *The American Journal of Physiology*, 1995, 268, s. F13–F19.
 - 10 Jones, S. C. – Saunders, H. J. – Qi, W. – Pollock, C. A.: Intermittent high glucose enhances cell growth and collagen synthesis in cultured human tubulointerstitial cells. *Diabetologia*, 1999, 42, s. 1113–1119.
 - 11 Horvath, E. M. – Benko, R. – Kiss, L., et al.: Rapid 'glycaemic swings' induce nitrosative stress, activate poly(ADP-ribose) polymerase and impair endothelial function in a rat model of diabetes mellitus. *Diabetologia*, 2009, 52, s. 952–961.
 - 12 The relationship of glycemic exposure (HbA_{1c}) to the risk of development and progression of retinopathy in the diabetes control and complications trial. *Diabetes*, 1995, 44, s. 968–983.
 - 13 Kilpatrick, E. S. – Rigby, A. S. – Atkin, S. L.: The effect of glucose variability on the risk of microvascular complications in type 1 diabetes. *Diabetes Care*, 2006, 29, s. 1486–1490.
 - 14 Lachin, J. M. – Genuth, S. – Nathan, D. M., et al.: Effect of glycemic exposure on the risk of microvascular complications in the diabetes control and complications trial-revisited. *Diabetes*, 2008, 57, s. 995–1001.
 - 15 Kilpatrick, E. S. – Rigby, A. S. – Atkin, S. L.: A1C variability and the risk of microvascular complications in type 1 diabetes: data from the Diabetes Control and Complications Trial. *Diabetes Care*, 2008, 31, s. 2198–2202.
 - 16 Ceriello, A. – Esposito, K. – Piconi, L., et al.: Oscillating glucose is more deleterious to endothelial function and oxidative stress than mean glucose in normal and type 2 diabetic patients. *Diabetes*, 2008, 57, s. 1349–1354.
 - 17 Monnier, L. – Mas, E. – Ginet, C., et al.: Activation of oxidative stress by acute glucose fluctuations compared with sustained chronic hyperglycemia in patients with type 2 diabetes. *JAMA: the Journal of the American Medical Association*, 2006, 295, s. 1681–1687.
 - 18 Wentz, I. M. – Kulik, W. – Michels, R. P., et al.: Glucose fluctuations and activation of oxidative stress in patients with type 1 diabetes. *Diabetologia*, 2008, 51, s. 183–190.
 - 19 Siegelaar, S. E. – Barwari, T. – Kulik, W., et al.: No relevant relationship between glucose variability and oxidative stress in well-regulated type 2 diabetes patients. *Journal of Diabetes Science and Technology*, 2011, 5, s. 86–92.
 - 20 Gimeno-Orna, J. A. – Castro-Alonso, F. J. – Boned-Julian, B. – Lou-Arnal, L. M.: Fasting plasma glucose variability as a risk factor of retinopathy in Type 2 diabetic patients. *Journal of Diabetes and Its Complications*, 2003, 17, s. 78–81.
 - 21 Krinsley, J. S.: Glycemic variability: a strong independent predictor of mortality in critically ill patients. *Critical Care Medicine*, 2008, 36, s. 3008–3013.
 - 22 van den Berghe, G. – Wouters, P. – Weekers, F., et al.: Intensive insulin therapy in the critically ill patients. *The New England Journal of Medicine*, 2001, 345, s. 1359–1367.
 - 23 Hirshberg, E. – Larsen, G. – Van Duker, H.: Alterations in glucose homeostasis in the pediatric intensive care unit: Hyperglycemia and glucose variability are associated with increased mortality and morbidity. *Pediatric Critical Care Medicine: a Journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies*, 2008, 9, s. 361–366.
 - 24 Kovatchev, B. P. – Cox, D. J. – Farhy, L. S., et al.: Episodes of severe hypoglycemia in type 1 diabetes are preceded and followed within 48 hours by measurable disturbances in blood glucose. *The Journal of Clinical Endocrinology and Metabolism*, 2000, 85, s. 4287–4292.
 - 25 Kilpatrick, E. S. – Rigby, A. S. – Goode, K. – Atkin, S. L.: Relating mean blood glucose and glucose variability to the risk of multiple episodes of hypoglycaemia in type 1 diabetes. *Diabetologia*, 2007, 50, s. 2553–2561.
 - 26 Heise, T. – Pieber, T. R.: Towards peakless, reproducible and long-acting insulins. An assessment of the basal analogues based on isoglycaemic clamp studies. *Diabetes, Obesity & Metabolism*, 2007, 9, s. 648–659.
 - 27 Evans, M. – Schumm-Draeger, P. M. – Vora, J. – King, A. B.: A review of modern insulin analogue pharmacokinetic and pharmacodynamic profiles in type 2 diabetes: improvements and limitations. *Diabetes, Obesity & Metabolism*, 2011, 13, s. 677–684.
 - 28 Irace, C. – Fiorentino, R. – Carallo, C., et al.: Exenatide improves glycemic variability assessed by continuous glucose monitoring in subjects with type 2 diabetes. *Diabetes Technology & Therapeutics*, 2011, 13, s. 1261–1263.
 - 29 McCall, A. L. – Cox, D. J. – Brodows, R., et al.: Reduced daily risk of glycemic variability: comparison of exenatide with insulin glargine. *Diabetes Technology & Therapeutics*, 2009, 11, s. 339–344.
 - 30 Lin, S. D. – Wang, J. S. – Hsu, S. R., et al.: The beneficial effect of alpha-glucosidase inhibitor on glucose variability compared with sulfonylurea in Taiwanese type 2 diabetic patients inadequately controlled with metformin: preliminary data. *Journal of Diabetes and Its Complications*, 2011, 25, s. 332–338.
 - 31 Marfella, R. – Barbieri, M. – Grella, R., et al.: Effects of vildagliptin twice daily vs. sitagliptin once daily on 24-hour acute glucose fluctuations. *Journal of Diabetes and Its Complications*, 2010, 24, s. 79–83.
 - 32 Rizzo, M. R. – Barbieri, M. – Marfella, R. – Paoli, G.: Reduction of oxidative stress and inflammation by blunting daily acute glucose fluctuations in patients with Type 2 diabetes: Role of dipeptidyl peptidase-IV inhibition. *Diabetes Care*, 2012, 35, s. 2076–2082.

Nová diagnostická kritéria gestačního diabetu

MUDr. Kateřina Andělová Ústav pro péči o matku a dítě,
Centrum pro výzkum diabetu, metabolismu a výživy 3. LF UK, Praha

- 1 Ryan, E. A.: Clinical diagnosis of gestational diabetes. *Clin Obstet Gynecol*, 2013, 56, s. 774–787.
- 2 Sermer, M. – Naylor, C. D. – Gare, D. J., et al.: Impact of increasing carbohydrate intolerance on maternal fetal outcome. *Am J Obstet Gynecol*, 1995, 173, s. 146–156.
- 3 Buchanan, T. A. – Xiang, A., et al.: What is gestational diabetes? *Diabetes Care*, 2007, 30, s. 105–111.
- 4 Metzger, B. E. – Buchanan, T. A. – Coustan, D. R., et al.: Summary and recommendation of the 5th International workshop-conference on GDM. *Diabetes Care*, 2007, 30, s. 251–260.
- 5 O'Sullivan, J. B. – Mahan, C.: Criteria for oral glucose tolerance test in pregnancy. *Diabetes*, 1964, 13, s. 278–285.
- 6 HAPO study, Cooperative research group: Hyperglycemia and adverse pregnancy outcome. *N Engl J Med*, 2008, 358, s. 1991–2002.
- 7 Hadar, E. – Yogeve, Y.: Translating the HAPO study into new diagnostic criteria for GDM. *Clin Obstet Gynecol*, 2013, 56, s. 758–783.
- 8 Ryan, E. A.: Diagnosing gestational diabetes. *Diabetologia*, 2011, 54, s. 480–486.
- 9 Lang, H.: Diagnosing gestational diabetes. Can expert opinion replace scientific evidence? *Diabetologia*, 2011, 54, s. 2211–2213.
- 10 Cundy, T.: Proposed new diagnostic criteria for GDM—a pause for thought. *Diabet Med*, 2012, 29, s. 176–180.
- 11 Čechurová, D. – Andělová, K.: Doporučené postupy pro léčbu diabetu v těhotenství. ČDS, 2013.

Léčba diabetiků 2. typu inzulinem degludek

MUDr. Eva Račická Diabetologická a interní ambulance, Ostrava

- 1 Internationas Diabetes Federation Diabetes Atlas, 5th edition. Brussels, 2011.
- 2 UK Prospective Diabetes Study (UKPDS) Group: Intensive blood-glucose control with sulphonylurea or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet*, 1998, 352, s. 837–853.
- 3 Wright, A. – Burden, A. C. – Palsey, R. B. – Cull, C. A. – Holman, R. R.: U.K. Prospective Diabetes Study Group. Sulphonylurea inadequacy: efficacy of addition of insulin over 6 years in patients with type 2 diabetes in the UKPDS 57. *Diabetes Care*, 2002, 25, s. 330–336.
- 4 Inzuchi, S. E. – Bergenstal, R. M. – Buse, J. B., et al.: Management of hyperglycemia in type 2 diabetes: a patient-centered approach. Position statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetologia*, 2012, 55, s. 1577–1596.
- 5 Khunti, K. – Wolden, M. L. – Thorsted, B. L., et al.: Clinical inertia in people with type 2 diabetes. *Diabetes Care*, 2013, 7, s. 22.
- 6 Heise, T. – Nosek, L. – Ronn, B. B. – Endahl, L. – Heinemann, L., et al.: Lower within-subject variability of insulin detemir in comparison to NPH insulin and insulin glargine in people with type 1 diabetes. *Diabetes*, 2004, 53, s. 1614–1620.
- 7 Gough, S. C. – Harris, S. – Woo, V. – Davies, M.: Insulin degludec: a overview of a novel ultra long-acting basal insulin. *Diabetes, obesity, and metabolism*, 2013, 15, s. 301–309.
- 8 Heise, T. – Hermanski, L. – Nosek, L. – Feldman, A. – Rasmussen, S. – Haahr, H.: Insulin degludec—four times lower pharmacodynamic variability than insulin glargine under steady-state conditions in type 1 diabetes. *Diabetes, obesity, and metabolism*, 2012, 14, s. 859–864.
- 9 Zinman, B. – Philis-Tsimikas, A. – Carlou, B. – Handelsman, Y., et al.: Insulin degludec versus insulin glargine in insulin-naïve patients with type 2 diabetes: a 1-year, randomized, treat-to-target trial. *Diabetes Care*, 2012, 35, s. 2464–2471.
- 10 Garber, A. J. – King, A. – Del Prato, S. – Sreenan, S. – Balci, M., et al.: Insulin degludec, an ultra-longacting Insulin, versus insulin glargine in basal-bolus treatment with mealtime insulin aspart in type 2 diabetes, a phase 3, randomised, open-label, treat-to-target non-inferiority trial. *Lancet*, 2012, 379, s. 1498–1507.
- 11 Brod, M. – Rana, A. – Barnett, A. H.: Adherence patterns in patients with type 2 diabetes on basal insulin analogues: missed, mistimed and reduced doses. *Curr Med Res Opin*, 2012, 28, s. 1933–1946.
- 12 Meneghini, L. – Atkin, S. – Gough, S. – Raz, I., et al.: The efficacy and safety of insulin degludec given in variable once-daily dosing intervals compared with insulin glargine and insulin degludec dosed at the same time daily. *Diabetes Care*, 2013, s. 1–7.
- 13 Zinman, B. – Vora, J. – Niemeyer, M. – Gall, M. – Mathieu, Ch.: Achieving fasting plasma glucose target without nocturnal hypoglycaemia: a pooled analysis of studies in type 2 diabetes comparing insulin degludec vs. insulin glargine. Poster 1051, prezentováno na EASD, 2013, Barcelona, Španělsko.

Inzulin degludek v léčbě pacientů s diabetes mellitus 1. typu

MUDr. Milan Flekač, Ph.D. 3. interní klinika endokrinologie a metabolismu 1. LF UK a VFN, Praha

- 1 Jonassen, I. – Havelund, S. – Hoeg-Jensen, T. – Steensgaard, D. B. – Wahlund, P. O. – Ribel, U.: Design of the novel protraction mechanism of insulin degludec, an ultra-long-acting basal insulin. *Pharm Res*, 2012, 8, s. 2104–2114.
- 2 Heise, T. – Hermanski, L. – Nosek, L. – Feldman, A. – Rasmussen, S. – Haahr, H.: Insulin degludec: four times lower pharmacodynamic variability than insulin glargine under steady-state conditions in type 1 diabetes. *Diabetes Obes Metab*, 2012, 14, s. 859–864.
- 3 Ratner, R. E. – Gough, S. C. – Mathieu, C. – Del Prato, S. – Bode, B. – Mersbach, H. – Endahl, L. – Zimman, B.: Hypoglycaemia risk with insulin degludec compared with insulin glargin in type 2 and type 1 diabetes: a pre-planned meta-analysis of phase 3 trials. *Diabetes Obes Metab*, 2013, 15, s. 175–184.
- 4 Heller, S. R. – Buse, J. – Fischer, M. – Garg, S. – Marre, M. – Merker, L. – Renard, E. – Russell-Jones, D. – Philotheou, A. – Francisco, A. M. – Pei, H. – Bode, B.: BEGIN Basal-Bolus Type 1 Trial Investigators. Insulin degludec, an ultra-longacting basal insulin, versus insulin glargine in basal-bolus treatment with mealtime insulin aspart in type 1 diabetes (BEGIN Basal-Bolus Type 1): a phase 3, randomised, open-label, treat-to-target non-inferiority trial. *Lancet*, 2012, 379, s. 1489–1497.
- 5 Bode, B. W. – Buse, J. B. – Fischer, M. – Garg, S. K. – Marre, M. – Merker, L. – Renard, E. – Russell-Jones, D. L. – Hansen, C. T. – Rana, A. – Heller, S. R.: BEGIN Basal-Bolus Type 1 trial investigators. Insulin degludec improves glycaemic control with lower nocturnal hypoglycaemia risk than insulin glargin in basal-bolus treatment with mealtime insulin aspart in Type 1 diabetes (BEGIN Basal-Bolus Type 1): 2-year results of a randomized clinical trial. *Diabet Med*, 2013, 30, s. 1293–1297.
- 6 Mathieu, C. – Hollander, P. – Miranda-Palma, B. – Cooper, J. – Franek, E. – Russell-Jones, D. – Larsen, J. – Tamer, S. C. – Bain, S. C.: NN1250-3770 (BEGIN: Flex T1) Trial Investigators. Efficacy and safety of insulin degludec in a flexible dosing regimen vs insulin glargine in patients with type 1 diabetes (BEGIN: Flex T1): a 26-week randomized, treat-to-target trial with a 26-week extension. *J Clin Endocrinol Metab*, 2013, 98, s. 1154–1162.
- 7 Birkeland, K. I. – Home, P. D. – Wendisch, U. – Ratner, R. E. – Johansen, T. – Endahl, L. A. – Lyby, K. – Jendle, J. H. – Roberts, A. P. – DeVries, J. H. – Meneghini, L. F.: Insulin degludec in type 1 diabetes: a randomized controlled trial of a new-generation ultra-long-acting insulin compared with insulin glargin. *Diabetes Care*, 2011, 34, s. 661–665.

Farmakologická léčba akutního srdečního selhání

prof. MUDr. Jindřich Špinar, CSc., FESC | MUDr. Ondřej Ludka, Ph.D. | MUDr. Jiří Pařenica

Interní kardiologická klinika, LF MU a FN Brno

prof. MUDr. Lenka Špinarová, Ph.D. | prof. MUDr. Jiří Vítověc, CSc., FESC

I. interní kardioangiologická klinika, LF MU a FN u svaté Anny, Brno

- 1 Brychta, T.: Akutní srdeční selhání pod dojmem studií REVIVE a SURVIVE. *Interv Akut Kardiol*, 2006, 5, s. 40–41.
- 2 Chen, Z. – Zhang, J. – Stampler, J. S.: Identification of the enzymatic mechanism of nitroglycerin bioactivation. *Proc Natl Acad Sci U S A*, 2002, 99, s. 8306–8311.
- 3 Lameire, N. – Kellum, J. A.: for the KDIGO AKI Guideline Work Group. Contrast-induced acute kidney injury and renal support for acute kidney injury: a KDIGO summary (Part 2). *Crit Care*, 2013, 17, s. 205.
- 4 Ludka, O. – Hlášenský, J. – Špinar, J.: Akutní kardiogenní poškození jater a levosimendan. *Kardiologická revue*, 2013, 15, s. 234–239.
- 5 McMurray, J. J. – Adamopoulos, S. – Anker, S. D., et al.: ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2012. The Task Force for the Diagnosis and Treatment of Acute and Chronic Heart Failure 2012 of the European Society of Cardiology. Developed in collaboration with the Heart Failure Association (HFA) of the ESC. *Eur Heart J*, 2012, 33, s. 1787–1847.
- 6 Munzel, T. – Daiber, A. – Gori, T.: Nitrate therapy. New aspects concerning molecular action and tolerance. *Circulation*, 2011, 123, s. 2132–2144.
- 7 Nieminen, M. S. – Boehm, M. – Cowie, M. R., et al.: Executive summary of the guidelines on the diagnosis and treatment of acute heart failure. *European Heart Journal*, 2005, 26, s. 383–416.
- 8 Nunez, C. – Victor, V. M. – Tur, R., et al.: Discrepancies between nitroglycerin and NO-releasing drugs on mitochondrial oxygen consumption, vasoactivity, and the release of NO. *Circ Res*, 2005, 97, s. 1063–1069.
- 9 Pirracchio, R. – Parenica, J. – Resche Rigon, M., et al.: GREAT network. The effectiveness of inodilators in reducing short term mortality among patient with severe cardiogenic shock: a propensity-based analysis. *PLoS One*, 2013, 8, s. e71659.
- 10 Sydow, K. – Daiber, A. – Oelze, M., et al.: Central role of mitochondrial aldehyde dehydrogenase and reactive oxygen species in nitroglycerin tolerance and cross-tolerance. *J Clin Incest*, 2004, 113, s. 482–489.
- 11 Špinar, J. – Vítověc, J. – Hradec, J., et al.: Comparison of clinical guidelines for the diagnosis and treatment of chronic heart failure of ČKS and ESC 2012. *Cor et Vasa*, 2013, 55, s. e301–e308.
- 12 Špinar, J. – Vítověc, J. – Hradec, J., et al.: Doporučení pro diagnostiku a léčbu chronického srdečního selhání – ČKS 2011. *Cor et Vasa*, 2012, s. 161–182.
- 13 Špinar, J. – Vítověc, J. – Hradec, J.: Co je nového v evropských doporučeních pro diagnostiku a léčbu srdečního selhání. *Kardiologická revue*, 2012, 14, s. 12.
- 14 Špinar, J. – Janský, P. – Kettner, J. – Málek, I.: Doporučení pro diagnostiku a léčbu akutního srdečního selhání. *Cor et Vasa*, 2006, 48, s. K3–K31.
- 15 Teerlink, J. R. – Cotter, G. – Davison, B. A.: Serelaxin, recombinant human relaxin-2, for treatment of acute heart failure (RELAX-AHF): a randomised, placebo-controlled trial. *The Lancet*, doi: 10.1016/S0140-6736(12)61855-8.
- 16 Werdan, K. – Ruß, M. – Buerke, M., et al.: Cardiogenic shock due to myocardial infarction: diagnosis, monitoring and treatment: a German-Austrian S3 Guideline. *Dtsch Arztebl Int*, 2012, 109, s. 343–351.
- 17 Zhang, J. – Chen, Z. – Cobry, F. R., et al.: Role of mitochondrial aldehyde dehydrogenase in nitroglycerin-induced vasodilation of coronary and systemic vessels: an intact canine model. *Circulation*, 2004, 110, s. 750–755.

Bradykardizující léky u nemocných s chronickým srdečním selháním

prof. MUDr. Jaromír Hradec, CSc., FESC 3. interní klinika 1. LF UK a VFN, Praha; interní kardioangiologická klinika, LF MU a FN u svaté Anny, Brno

- 1 MERIT-HF Study Group: Effect of metoprolol CR/XL in chronic heart failure: Metoprolol CR/XL Randomized Intervention Trial in Congestive Heart Failure (MERIT-HF). *Lancet*, 1999, 353, s. 2001–2007.
- 2 Lechat, P. – Hulot, J. S. – Escalante, S., et al.: On behalf of the CIBIS II investigators. Heart rate and cardiac rhythm relationships with bisoprolol benefit in chronic heart failure in CIBIS II trial. *Circulation*, 2001, 103, s. 1428–1433.
- 3 Böhm, M. – Swedberg, K. – Komajda, M., et al.: On behalf of the SHIFT Investigators. Heart rate as a risk factor in chronic heart failure (SHIFT): the association between heart rate and outcomes in a randomized placebo-controlled trial. *Lancet*, 2010, 376, s. 886–894.
- 4 Kjekhus, J. – Gullestad, L.: Heart rate as a therapeutic target in heart failure. *Eur Heart J*, 1999, 1, s. H64–H69.
- 5 Waagstein, F. – Hjalmarson, A. – Varanauskas, E. – Wallentin, L.: Effect of chronic beta-adrenergic blockade in congestive cardiomyopathy. *Br Heart J*, 1975, 37, s. 1022–1036.
- 6 Fox, K. – Ford, I. – Steg, G., et al.: On behalf of the BEAUTIFUL investigators. Ivabradine for patients with stable coronary artery disease and left-ventricular systolic dysfunction (BEAUTIFUL): a randomized, double-blind, placebo-controlled trial. *Lancet*, 2008, 372, s. 807–816.
- 7 Swedberg, K. – Komajda, M. – Böhm, M., et al.: On behalf of the SHIFT investigators. Ivabradine outcomes in chronic heart failure (SHIFT): a randomized placebo-controlled study. *Lancet*, 2010, 376, s. 875–885.
- 8 Swedberg, K. – Komajda, M. – Böhm, M., et al.: Effects on outcomes of heart rate reduction by ivabradine in patients with congestive heart failure: Is there an influence of beta-blocker dose? Findings from the SHIFT. *J Am Coll Cardiol*, 2012, 59, s. 1938–1945.
- 9 Böhm, M. – Borer, J. – Ford, I., et al.: Heart rate at baseline influences the effect of ivabradine on cardiovascular outcomes in chronic heart failure: analysis from the SHIFT study. *Clin Res Cardiol*, 2013, 102, s. 11–22.

Kombinace ACE inhibitorů a sartanů – komu a kdy?

prof. MUDr. Jiří Vítověc, CSc., FESC 1. interní kardio-angiologická klinika LF MU a FN u sv. Anny v Brně
prof. MUDr. Jindřich Špinar, CSc., FESC Interní kardiologická klinika LF MU a FN Brno

- 1 Bultas, J.: Osa renin-angiotensin-aldosteron – půl století od objasnění funkce a stále nová překvapení. *Remedia*, 2008, 18, s. 120–129.
- 2 Opie, L. H. – Gersh, J. B., et al.: *Drug for heart*. Philadelphia, Elsevier, 2013, s. 571.
- 3 Vítověc, J. – Špinar, J., et al.: *Farmakoterapie kardiovaskulárních onemocnění*. Praha, Grada, 2014, v tisku.
- 4 Špinar, J. – Vítověc, J.: Indikace blokátorů receptorů 1 pro angiotenzin II v roce 2002. *Intern Med Prax*, 2002, 4, s. 164–168.
- 5 Filipovský, J. – Widimský, J. – Ceral, J., et al.: Diagnostické a léčebné postupy u arteriální hypertenze – verze 2012. Doporučení České společnosti pro hypertenci. *Vnitř Lék*, 2012, 58, s. 785–801.
- 6 Doulton, T. W. R. – He, F. J. – MacGregor, G. A.: Systematic review of combined angiotensin-converting enzyme inhibition and angiotensin receptor blockade in hypertension. *Hypertension*, 2005, 45, s. 880–886.
- 7 Pfeffer, M. A. – McMurray, J. J. V. – Velazquez, E. J., et al.: for VALIANT Investigators. Valsartan, captopril, or both in myocardial infarction complicated by heart failure, left ventricular dysfunction, or both. *N Engl J Med*, 2003, 349, s. 1893–1906.
- 8 The ONTARGET Investigators: Telmisartan, ramipril, or both in patients at high risk for vascular events. *N Engl J Med*, 2008, 358, s. 1547–1559.
- 9 Špinar, J. – Vítověc, J. – Hradec, J., et al.: Czech Society of Cardiology guidelines for the diagnosis and treatment of chronic heart failure 2011. *Cor Vasa*, 2012, 54, s. E113–134.
- 10 Widimský, J.: Výsledky studie léčby srdečního selhání Val-HeFT. *Cor Vasa*, 2001, 43, s. 110–112.
- 11 McMurray, J. J. V. – Östergren, J. – Swedberg, K., et al.: Effects of candesartan in patients with chronic heart failure and reduced left-ventricular systolic function taking angiotensin converting-enzyme inhibitors: the CHARM-Added trial. *Lancet*, 2003, 362, s. 767–771.

Renální denervace u rezistentní hypertenze: výsledky klinických studií

prof. MUDr. Jiří Widimský jr., CSc. 3. Interní klinika – Centrum pro hypertenci VFN a 1. LF UK, Praha

- 1 Kaplan, N. M.: Resistant hypertension. *J Hypertens*, 2005, 23, s. 1441–1444.
- 2 Píkus, T. – Widimský, J. Jr. – Zelinka, T., et al.: Prevalence and clinical characteristics of resistant hypertension in a specialist center. *Cor Vasa*, 2007, 49, s. 351–354.
- 3 Fagard, R.: Resistant hypertension. *Heart*, 2012, 98, s. 254–261.
- 4 Krum, H. – Sobotka, P. – Whitebourn, R., et al.: Catheter-based renal sympathetic denervation for resistant hypertension: a multicentre safety and proof-of-principle cohort study. *Lancet*, 2009, 373, s. 1275–1281.
- 5 Symplicity HTN-1 Investigators: Catheter-based renal sympathetic denervation for resistant hypertension: Durability of blood pressure reduction out to 24 months. *Hypertension*, 2011, 57, s. 911–917.
- 6 Krum, H. – Schlaich, M. P. – Böhm, M. – Mahfoud, F. – Rocha-Singh, K. – Katholi, R. – Esler, M. D.: Percutaneous renal denervation in patients with treatment-resistant hypertension: final 3-year report of the Symplicity HTN-1 study. *Lancet*, 2013, pii: S0140-6736(13)62192-3.
- 7 Esler, M. D. – Krum, H. – Sobotka, P. A., et al.: Renal sympathetic denervation in patients with treatment-resistant hypertension (The Symplicity HTN-2 Trial): a randomised controlled trial. *Lancet*, 2010, 376, s. 1903–1909.
- 8 Esler, M. D. – Krum, H. – Schlaich, M. – Schmieder, R. E. – Böhm, M. – Sobotka, P. A.: Symplicity HTN-2 Investigators Renal sympathetic denervation for treatment of drug-resistant hypertension: one-year results from the Symplicity HTN-2 randomized, controlled trial. *Circulation*, 2012, 126, s. 2976–2982.
- 9 Gosain, P. – Garimella, P. S. – Hart, P. D. – Agarwal, R.: Renal sympathetic denervation for treatment of resistant hypertension: a systematic review. *J Clin Hypertens (Greenwich)*, 2013, 15, s. 75–84.
- 10 Persu, A. – Renkin, J. – Thijss, L. – Staessen, J. A.: Renal denervation: ultima ratio or standard in treatment-resistant hypertension. *Hypertension*, 2012, 60, s. 596–606.
- 11 Brinkmann, J. – Heusser, K. – Schmidt, B. M. – Menne, J. – Klein, G. – Bauersachs, J. – Haller, H. – Sweep, F. C. – Diedrich, A. – Jordan, J. – Tank, J.: Catheter-based renal nerve ablation and centrally generated sympathetic activity in difficult-to-control hypertensive patients: prospective case series. *Hypertension*, 2012, 60, s. 1485–1490.
- 12 Fadl Emula, F. E. – Hoffmann, P. – Fossum, E. – Brekke, M. – Gjønnaess, E. – Hjørnholm, U. – Kjar, V. N. – Rostrup, M. – Kjeldsen, S. E.: Renal sympathetic denervation in patients with treatment-resistant hypertension after witnessed intake of medication before qualifying ambulatory blood pressure. *Hypertension*, 2013, 62, s. 526–532.
- 13 Persu, A. – Jin, Y. – Azizi, M., et al.: On behalf of the European Network Coordinating research on Renal Denervation (ENCOReD) Blood pressure changes after renal denervation at 10 European expert centers. *Journal of Human Hypertension*, 2013, s. 1–7.
- 14 Strauch, B. – Petrák, O. – Zelinka, T. – Rosa, J. – Somlóová, Z. – Indra, T. – Chytík, L. – Marešová, V. – Kurcová, I. – Holaj, R. – Wichterle, D. – Widimský, J. Jr.: Precise assessment of noncompliance with the antihypertensive therapy in patients with resistant hypertension using toxicological serum analysis. *J Hypertens*, 2013, 31, s. 2455–2461.
- 15 Ceral, J. – Habrdová, V. – Vorisek, V. – Bima, M. – Pelouch, R. – Solar, M.: Difficult-to-control arterial hypertension or uncooperative patients? The assessment of serum antihypertensive drug levels to differentiate non-responsiveness from non-adherence to recommended therapy. *Hypertens Res*, 2011, 34, s. 87–90.
- 16 Widimský, P. – Filipovský, J. – Widimský, J. Jr. – Branny, M. – Monhart, V. – Táborský, M.: Expert consensus statement of the Czech Society of Cardiology and the Czech Society of Hypertension on catheter-based sympathetic renal denervation procedures (RDN) in the Czech Republic. *Cor et Vasa*, 2012, 54, s. 155–159.

Natriuretické peptidy u akutního srdečního selhání

MUDr. Jan Krupička | MUDr. Tomáš Janota 3. interní klinika 1. LF UK a VFN Praha

- 1 Nieminen, M. S. – Bohm, M. – Cowie, M. R., et al.: Executive summary of the guidelines on the diagnosis and treatment of acute heart failure: the Task Force on Acute Heart Failure of the European Society of Cardiology. *Eur Heart J*, 2005, 26, s. 384–416.
- 2 Parenica, J. – Spinar, J. – Vítověc, J., et al.: Long-term survival following acute heart failure: The Acute Heart Failure Database Main registry (AHEAD Main). *Eur J Intern Med*, 2012, 92, s. 284–286.
- 3 McMurray, J. J. – Adamopoulos, S. – Anker, S. D., et al.: ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2012: The Task Force for the Diagnosis and Treatment of Acute and Chronic Heart Failure 2012 of the European Society of Cardiology. Developed in collaboration with the Heart Failure Association (HFA) of the ESC. *Eur Heart J*, 2012, 33, s. 1787–847.
- 4 Levin, E. R. – Gardner, D. G. – Samson, W. K.: Natriuretic Peptides. *N Engl J Med*, 1998, 339, s. 321–328.
- 5 Krupicka, J. – Janota, T. – Kasalova, Z., et al.: Natriuretic peptides—physiology, pathophysiology and clinical use in heart failure. *Physiol Rev*, 2009, 58, s. 171–177.
- 6 Vanderheyden, M. – Bartunek, J. – Goethals, M.: Brain and other natriuretic peptides: molecular aspects. *Eur J Heart Fail*, 2004, 6, s. 261–268.
- 7 Chen, H. H.: Heart failure: a state of brain natriuretic peptide deficiency or resistance or both! *J Am Coll Cardiol*, 2007, 49, s. 1089–1091.
- 8 McCullough, P. A. – Sandberg, K. R.: Sorting out the evidence on natriuretic peptides. *Rev Cardiovasc Med*, 2003, 4, s. S13–S19.
- 9 Silver, M. A. – Maisel, A. – Yancy, C. W., et al.: BNP Consensus Panel 2004: A clinical approach for the diagnostic, prognostic, screening, treatment monitoring, and therapeutic roles of natriuretic peptides in cardiovascular diseases. *Congest Heart Fail*, 2004, 10, s. 1–30.
- 10 McCullough, P. A. – Nowak, R. M. – McCord, J., et al.: B-type natriuretic peptide and clinical judgment in emergency diagnosis of heart failure: Analysis from Breathing Not Properly (BNP) multinational study. *Circulation*, 2002, 106, s. 416–422.
- 11 Intravenous nesiritide vs nitroglycerin for treatment of decompensated congestive heart failure: a randomized controlled trial. *JAMA*, 2002, 287, s. 1531–1540.
- 12 Redfield, M. M. – Rodeheffer, R. J. – Jacobsen, S. J., et al.: Plasma brain natriuretic peptide concentration: impact of age and gender. *J Am Coll Cardiol*, 2002, 40, s. 976–982.
- 13 McCullough, P. A. – Duc, P. – Omland, T., et al.: B-type natriuretic peptide and renal function in the diagnosis of heart failure: an analysis from the Breathing Not Properly Multinational Study. *Am J Kidney Dis*, 2003, 41, s. 571–579.
- 14 Anwaruddin, S. – Lloyd-Jones, D. M. – Baggish, A., et al.: Renal function, congestive heart failure, and amino-terminal pro-brain natriuretic peptide measurement: results from the ProBNP Investigation of Dyspnea in the Emergency Department (PRIDE) study. *J Am Coll Cardiol*, 2006, 47, s. 91–97.
- 15 Morello, A. – Lloyd-Jones, D. M. – Chae, C. U., et al.: Association of atrial fibrillation and amino-terminal pro-brain natriuretic peptide concentrations in dyspneic subjects with and without acute heart failure: results from the ProBNP Investigation of Dyspnea in the Emergency Department (PRIDE) study. *Am Heart J*, 2007, 153, s. 90–97.
- 16 Wozakowska-Kaplön, B. – Opolski, G. – Herman, Z., et al.: Natriuretic peptides in patients with atrial fibrillation. *Cardiol J*, 2008, 15, s. 525–529.
- 17 Wang, T. J. – Larson, M. G. – Levy, D., et al.: Impact of obesity on plasma natriuretic peptide levels. *Circulation*, 2004, 109, s. 594–600.
- 18 Rogers, R. K. – Stoddard, G. J. – Greene, T., et al.: Usefulness of adjusting for clinical covariates to improve the ability of B-type natriuretic peptide to distinguish cardiac from noncardiac dyspnea. *Am J Cardiol*, 2009, 104, s. 689–694.
- 19 Januzzi, J. L. – van Kimmenade, R. – Lainchbury, J., et al.: NT-proBNP testing for diagnosis and short-term prognosis in acute destabilized heart failure: an international pooled analysis of 1256 patients. The International collaborative of NT-proBNP study. *Eur Heart J*, 2006, 27, s. 330–337.
- 20 Ogawa, A. – Seino, Y. – Yamashita, T., et al.: Difference in elevation of N-terminal pro-BNP and conventional cardiac markers between patients with ST elevation vs non-ST elevation acute coronary syndrome. *Circ J*, 2006, 70, s. 1372–1378.
- 21 Jakubik, P. – Janota, T. – Widimský, J. Jr., et al.: Impact of essential hypertension and primary aldosteronism on plasma brain natriuretic peptide concentration. *Blood Press*, 2006, 15, s. 302–307.
- 22 ten Wolde, M. – Tulevski, I. I. – Mulder, J. W. M., et al.: Brain natriuretic peptide as a predictor of adverse outcome in patients with pulmonary embolism. *Circulation*, 2003, 107, s. 2082–2084.
- 23 Knebel, F. – Schimke, I. – Pliet, K., et al.: NT-ProBNP in acute heart failure:

- correlation with invasively measured hemodynamic parameters during recompensation. *J Card Fail*, 2005, 11, s. S38–S41.
- 24 Fonarow, G. C. – Peacock, W. F. – Phillips, C. O., et al.: Admission B-type natriuretic peptide levels and in-hospital mortality in acute decompensated heart failure. *J Am Coll Cardiol*, 2007, 49, s. 1943–1950.
- 25 Bettencourt, P. – Azevedo, A. – Pimenta, J., et al.: N-terminal-pro-brain natriuretic peptide predicts outcome after hospital discharge in heart failure patients. *Circulation*, 2004, 110, s. 2168–2174.
- 26 Sackner-Bernstein, J. D. – Skopicki, H. A. – Aaronson, K. D.: Risk of worsening renal function with nesiritide in patients with acutely decompensated heart failure. *Circulation*, 2005, 111, s. 1487–1491.
- 27 Sackner-Bernstein, J. D. – Kowalski, M. – Fox, M., et al.: Short-term risk of death after treatment with nesiritide for decompensated heart failure: a pooled analysis of randomized controlled trials. *JAMA*, 2005, 293, s. 1900–1905.
- 28 O'Connor, C. M. – Starling, R. C. – Hernandez, A. F., et al.: Effect of nesiritide in patients with acute decompensated heart failure. *N Engl J Med*, 2011, 365, s. 32–43.
- 29 Mitrovic, V. – Seferovic, P. M. – Simeunovic, D., et al.: Haemodynamic and clinical effects of ularitide in decompensated heart failure. *Eur Heart J*, 2006, 27, s. 2823–2832.

Co očekáváme od antikoagulační léčby v roce 2014

prof. MUDr. Jan Kvasnička, CSc. Trombotické centrum, ÚLBD, VFN a 1. LF UK, Praha

- Guyatt, G. H. – Akl, E. A. – Crowther, M., et al.: For the American College of Chest Physicians Antithrombotic Therapy and Prevention of Thrombosis Panel. Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*, 2012, 141, s. e155–e737.
- Souhrn údajů o přípravku Xarelto. Dostupný z: http://www.emea.europa.eu/docs/cs_CZ/document_library/EPAR_-_Product_Information/human/000944/WC500057108.pdf, vyhledáno 18. 12. 2013.
- Souhrn údajů o přípravku Eliquis. Dostupný z: http://www.ema.europa.eu/docs/cs_CZ/document_library/EPAR_-_Product_Information/human/002148/WC500107728.pdf, vyhledáno 18. 12. 2013.
- Souhrn údajů o přípravku Pradaxa. Dostupný z: http://www.emea.europa.eu/docs/cs_CZ/document_library/EPAR_-_Product_Information/human/000829/WC500041059.pdf, vyhledáno 18. 12. 2013.
- Čihák, R. – Haman, L. – Heinc, P.: Souhrn Aktualizace doporučených postupů ESC pro léčbu fibrilace síní z roku 2012. *Cor et Vasa*, 2012, 54, s. 341–351.
- Čihák, R. – Haman, L. – Táborský, M.: Praktická doporučení European Heart Rhythm Association pro použití nových perorálních antikoagulantů u pacientů s nevalvulární fibrilací síní. Souhrn dokumentu připravený Českou kardiologickou společností. *Cor et Vasa*, 2013, 55, s. 1–16.
- http://www.daiichi-sankyo.com/media_investors/_media_relations/press_releases/detail/006062.html, vyhledáno 18. 12. 2013.
- Hart, R. G. – Eikelboom, J. W. – Ingram, A. J. – Herzog, C. A.: Anticoagulants in atrial fibrillation patients with chronic kidney disease. *Nat Rev Nephrol*, 2012, 8, s. 569–578.
- Piccini, J. P. – Stevens, S. R. – Chány, Y., et al.: Renal dysfunction as a predictor of stroke and systemic embolism in patients with non-valvular atrial fibrillation: validation of the R2CHADS2 index in the ROCKET AF (Rivaroxaban Once-Daily, Oral, Direct Factor Xa Inhibition Compared With Vitamin K Antagonism for Prevention of Stroke and Embolism Trial in Atrial Fibrillation) and ATRIA (Anticoagulation and Risk Factors in Atrial Fibrillation) study cohorts. *Circulation*, 2013, 127, s. 224–232.
- Gong, I. Y. – Kim, R. B.: Importance of pharmacokinetic profile and variability as determinants of dose and response to dabigatran, rivaroxaban, and apixaban. *Can J Cardiol*, 2013, 29, s. S24–33.
- Boehringer Ingelheim Press Releases Ridgefield, CT, dostupné z: <http://www.boehringer-ingelheim.com>, vyhledáno 3. 9. 2013.
- Lu, G., et al.: A specific antidote for reversal of anticoagulation by direct and indirect inhibitors of coagulation factor Xa. *Nature Medicine*, 2013, 19, s. 446–451.
- Verheugt, F. W. A.: The new oral anticoagulants in atrial fibrillation: an update. *Neth Heart J*, 2013, 21, s. 480–484.
- Ruff, C. T. – Giugliano, R. P. – Braunwald, E., et al.: Comparison of the efficacy and safety of new oral anticoagulants with warfarin in patients with atrial fibrillation: a meta-analysis of randomised trials. *Lancet*, 2013, 382, s. 50140–6736.

Klinické zkušenosti s léčbou flebotrombózy přípravkem Xarelto (rivaroxabanem)

doc. MUDr. Tomáš Kvasnička, CSc. Trombotické centrum, ÚLBD, VFN a 1. LF UK, Praha

- Andrews, E. J. Jr. – Fleischer, A. C.: Sonography for deep venous thrombosis: current and future applications. *Ultrasound Q*, 2005, 21, s. 213–225.
- Burness, C. B. – Perry, C. M., et al.: Rivaroxaban: a review of its use in the treatment of deep vein thrombosis or pulmonary embolism and the prevention of recurrent venous thromboembolism. *Drugs*, 2014, 74, s. 243–262.
- Chandler, W. L.: Anticoagulation without monitoring. *Am J Clin Pathol*, 2013, 140, s. 606–607.
- Fleming, T. R. – Emerson, S. S., et al.: Evaluating rivaroxaban for non-valvular atrial fibrillation: regulatory considerations. *N Engl J Med*, 2011, 365, s. 1557–1559.

Fixní kombinace bisoprolol – amlodipin

MUDr. Eva Kociánová I. interní klinika – kardiologická FN Olomouc

- Law, M. R. – Morfia, J. K. – Wald, N. J.: Use of blood pressure lowering drugs in the prevention of cardiovascular disease: meta-analysis of 147 randomised trials in the context of expectations from prospective epidemiological studies. *BMJ*, 2009, 338, s. b1665.
- Turnbull, F., et al. – Blood Pressure Lowering Treatment Trialists' Collaboration: Effect of different blood pressure-lowering regimens on major cardiovascular events in individuals with and without diabetes mellitus: results of prospectively designed overviews of randomized trials. *Arch Intern Med*, 2005, 165, s. 1410–1419.
- Verdecchia, P. – Reboldi, G. – Angeli, F., et al.: Angiotensin-converting enzyme inhibitors and calcium channel blockers for coronary heart disease and stroke prevention. *Hypertension*, 2005, 46, s. 386–392.
- Wiysonge, C. S. – Bradley, H. A. – Volmink, J., et al.: Beta-blockers for hypertension. *Cochrane Database Syst Rev*, 2012, 11, CD002003, doi: 10.1002/14651858.CD002003.pub4.
- Bradley, H. A. – Wiysonge, C. S. – Volmink, J., et al.: How strong is the evidence for use of beta-blockers as first line therapy for hypertension? *J Hypertens*, 2006, 24, s. 2131–2141.
- Wellstein, A., et al.: Affinity and selektivity of beta-adrenoceptor antagonists in vitro. *J Cardiovasc Pharmacol*, 1986, 8, s. S36–40.
- Mancia, G. – De Backer, G. – Dominiczak, A., et al.: Guidelines for the Management of Arterial Hypertension: The task force for the management of arterial hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). *J Hypertens*, 2007, 25, s. 1105–1187.
- Bangalore, S. – Kamalakkannan, G. – Parkar, S., et al.: Fixed-dose combinations improve medication compliance: a meta-analysis. *Am J Med*, 2007, 120, s. 713–719.
- Filipovský, J. – Widimský, J. Jr. – Ceral, J., et al.: Diagnostické a léčebné postupy u arteriální hypertenze – verze 2012. Doporučení České společnosti pro hypertenzi. *Hypertenze & kardiovaskulární prevence*, 2012, 3, s. 1–16.
- Wald, D. S. – Law, M. – Morris, J. K., et al.: Combination therapy versus monotherapy in reducing blood pressure: meta-analysis on 11,000 participants from 42 trials. *Am J Med*, 2009, 122, s. 290–300.
- Sever, P. S. – Messerli, F. H.: Hypertension management 2011: optimal combination therapy. *Eur Heart J*, 2011, 32, s. 2499–2506.
- Rana, R. – Patil, A.: Efficacy and safety of bisoprolol plus amlodipine fixed dose combination in essential hypertension. *Indian Pract*, 2008, 61, s. 225–234.
- Gradman, A. H. – Basile, J. N. – Carter, B. L., et al. – American Society of Hypertension Writing Group: Combination therapy in hypertension. *J Am Soc Hypertens*, 2010, 4, s. 42–50.

Vysoké dávky statinů po akutním koronárním syndromu

MUDr. Jan Piňha, CSc. Laboratoř pro výzkum aterosklerózy, Centrum experimentální medicíny, IKEM Praha

- 1 Kannel, W. B. – Schatzkin, A.: Sudden death: lessons from subsets in population studies. *J Am Coll Cardiol*, 1985, 5, s. 141B–149B.
- 2 ESC/EAS guidelines for the management of dyslipidaemias. The Task Force for the management of dyslipidaemias of the European Society of Cardiology and the European Atherosclerosis Society. *Eur Heart J*, 2011, 32, s. 1769–1818.
- 3 Vaverková, H. – Soška, V. – Rosolová, H., et al.: Doporučení pro diagnostiku a léčbu dyslipidemii v dospělosti, vypracované výborem České společnosti pro aterosklerózu. *Vnitř Lék*, 2007, 53, s. 181–197.
- 4 Dutta, P. – Courties, G. – Wei, Y., et al.: Myocardial infarction accelerates atherosclerosis. *Nature*, 2012, 487, s. 325–329.
- 5 Buchwald, H. – Varco, R. L. – Matts, J. P., et al.: Effect of partial ileal bypass surgery on mortality and morbidity from coronary heart disease in patients with hypercholesterolemia. Report of the Program on the Surgical Control of the Hyperlipidemias (POSCH). *N Engl J Med*, 1990, 323, s. 946–955.
- 6 Cannon, C. P. – Braunwald, E. – McCabe, C. H., et al.: Intensive versus moderate lipid lowering with statins after acute coronary syndromes. *N Engl J Med*, 2004, 350, s.1495–1504.
- 7 Schwartz, G. G. – Olsson, A. G. – Ezekowitz, M. D., et al.: Effects of atorvastatin on early recurrent ischemic events in acute coronary syndromes: the MIRACL study: a randomized controlled trial. *JAMA*, 2001, 285, s. 1711–1718.
- 8 Piňha, J. – Štulc, T. – Janota, T. – Hričák, V.: Léčba statinu u pacientů s akutním koronárním syndromem. Společné stanovisko České společnosti pro aterosklerózu, Pracovní skupiny akutní kardiologie České kardiologické společnosti a Pracovnej skupiny akútnej kardiológie Slovenskej kardiologickej spoločnosti. *Interv Akut Kardiol*, 2012, 11, s. 89–90.
- 9 Briel, M. – Vale, N. – Schwartz, G. G., et al.: Updated evidence on early statin therapy for acute coronary syndromes: Meta-analysis of 18 randomized trials involving over 14,000 patients. *Int J Cardiol*, 2011, 158, s. 93–100.

Observační studie pacientů léčených lerkanidipinem v podmírkách běžné klinické praxe v České republice

PharmDr. Josef Suchopář Imfopharm, a. s.

MUDr. Jiří Slíva, Ph.D. Ústavy farmakologie 2. a 3. LF UK, Praha, interní klinika 1. LF UK a VFN, Praha
prof. MUDr. Miroslav Souček, CSc. 2. interní klinika LF MU a FN u sv. Anny Brno

- 1 Burnier, M. – Gasser, U. E.: Efficacy and tolerability of lercanidipine in patients with hypertension: results of a Phase IV study in general practice. *Expert Opin Pharmacother*, 2007, 8, s. 2215–2223.
- 2 Pruijm, M. T. – Maillard, M. P. – Burnier, M.: Patient adherence and the choice of antihypertensive drugs: focus on lercanidipine. *Vasc Health Risk Manag*, 2008, 4, s. 1159–1166.
- 3 Makarounas-Kirchmann, K. – Glover-Koudounas, S. – Ferrari, P.: Results of a meta-analysis comparing the tolerability of lercanidipine and other dihydropyridine calcium channel blockers. *Clin Ther*, 2009, 31, s. 1652–1663.