Literatura ACTA MEDICINAE 14/2020 Vnitřní lékařství

Novinky v léčbě chronického srdečního selhání

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1 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC). *Europ Heart J,* 2016, 37, s. 2129–2200.
2 **Damman, K. – Gori, M. – Clagett, B., et al.**: Renal effects associated outcomes during angiotensin-neprilysin inhibition in heart failure. *JACC Heart Fail*, 2018, 6, s. 489–498.
3 **Colucci, W. S. – Elkayam, U. – Horton, D. P., et al.**: Intravenous nesiritide, a natriuretic peptide, in the treatment of decompensated congestive heart failure. *N Engl J Med,* 2000, 343, s. 264–253.
4 **Ferrannini, E. – Mark, M. – Mayoux, E.**: CV Protection in the EMPA-REG outcome trial: A„Thrifty Substrate" hypothesis. *Diabetes Care,* 2016, 39, s. 1108–1114.
5 **Kostis, J. B. – Packer, M. – Black, H. R., et al.**: Omapatrilat and enalapril in patients with hypertension: the Omapatrilat Cardiovascular Treatment vs. Enalapril (OCTAVE) trial. *Am J Hypertens*, 2004, 17, s. 103–111.
6 **Lábrová, R. – Špinar, J. – Pařenica, J., et al.**: Association of atrial fibrillation and chronic heart failure. FAR NHL registry. *Eur J Heart Fail,* 2018, 20, s. 1–638.
7 **Ludka, O.**: Ularitid v léčbě akutně dekompenzovaného srdečního selhání – výsledky studie TRUE-AHF. *Kardiologická revue – Interní medicína*, 2017, 19, s. 172–176.
8 **Málek, F.**: Duální inhibice angiotenzinu a neprilyzinu – revoluční princip léčby chornického srdečního selhání se sníženou ejekční frakcií levé komory. *Kardiol Rev Int med,* 2016, 18, s. 295–298.
9 **McMurray, J. J. V. – Packer, M. – Desai, A. S., et al.**: angiotensin-neprilysin inhibition versus enalapril in heart failure. *N Engl J Med,* 2014, 371, s. 993–1004.
10 **McMurray, J. J. V. – Inzucchi, L. – Køber, M. N., et al.**: Dapagliflozin in patients with heart failure and reduced ejection fraction. *N Engl J Med,* 2019, 381, s. 1995–2008.
11 **Mudaliar, S. – Alloju, S. – Henry, R. R.**: Can a shift in fuel energetics explain the beneficial cardiorenal outcomes in the EMPA-REG OUTCOME study? A unifying hypothesis. *Diabetes Care,* 2016, 39, s. 1115–1122.
12 **Packer, M. – Califf, R. M. – Konstam, M. A., et al.**; OVERTURE Study Group: Comparison of omapatrilat and enalapril in patients with chronic heart silure. *Circulation*, 2002, 106, s. 920–926.
13 **Packer, M. – Clagett, B. – Lefkowitz, P. M., et al.**: Effect of neprilysin on renal functions in patients with type 2 diabetes and chronic heart failure who are receiving target doses of inhibitors of the renin-angiotensin system: a secondary analysis of the PARADIGM-HF trial. *Lancet Diabetes Endocrinol*, 2018, 6, s. 547–554.
14 **Pfefferb, M. A. – Swedberger, K. – Granger, C. B., et al.**: Effects of candesartan on mortality and morbidity in patients with chronic heart failure: the CHARM – Overall programme. *Lancet,* 2003, 362, s. 759–766.
15 **Seferovic, J. P. – Clagett, B. – Seidelmann, S. B., et al.**: Effect of sacubitril valsartan versus enalapril on glycemic control in patients with heart failure and diabetes: a post hoc analysis from the PARADIGM-HF trial. *Lancet Diabetes Endocrinol*, 2017, 5, s. 333–340.
16 **Seferovic, P. M. – Petrie, M. C. – Filipatos, G. S., et al.**: Type 2 diabetes mellitus and heart failure: a position statement from Heart Failure Association of the European Society of Cardiology. *Eur J Heart Fail,* 2018, 20, s. 853–872.
17 **Seferovic, P. M. – Coats, A. J. S. – Ponikowski, P.**: European Society of Cardiology/Heart Failure Association position paper on the role and safety of new glucose-lowering drugs in patients with heart failure. *Eur J Heart Fail*, 2020, 22, s. 196–213.
18 **Solomon, S. D. – McMuray, J. V. – Anand, I. S.**; for the PARAGON investigators: Angiotensin-neprilysin inhibition in heart failure with preserved ejection fraction. *Eur J Heart Fail*, 2020, 22, s. 196–213.
19 **Špinar, J. – Špinarová, L. – Vítovec, J.**: Studie PARADIGM-HF možná změní léčbu srdečního selhání. *Hypertenze a KV prevence,* 2014, 2, s. 25–26.
20 **Špinar, J. – Vítovec, J. – Špinarová, L.**: Nový duální inhibitor AT_1 receptorů a vazopeptidáz (LCZ 696) a studie PARADIGM. *Intervenční a akutní kardiologie,* 2018, 17, s. 184–186.
21 **Špinar, J. – Hradec, J. – Špinarová, L. – Vítovec, J.**: Summary of the 2016 ESC Guidelines on the diagnosis and treatment of acute and chronic heart failure. Prepared by the Czech Society of Cardiology. *Cor Vasa,* 2016, 58, s. e530–e568.
22 **Špinar, J. – Špinarová, L. – Pařenica, J., et al.**: FAR NHL – FARmacology and NeuroHumoraL activation in chronic heart failure-one year prognosis. *Eur J Heart Fail,* 2018, 20, s. 1–638.
23 **Špinar, J. – Špinarová, L. – Vítovec, J.**: Nahradí ARNI inhibitory angiotenzin konvertujícího enzymu?. *Remedia,* 2018, 28, s. 144–148.
24 **Špinar, J. – Špinarová, L. – Vítovec, J.**: Duální inhibice AT_1 receptoru pro angiotenzin II a neprilizinu nebo inhibice angiotenzin konvertujícího enzymu. *Kardiol Rev Int Med,* 2018, 20, s. 47–53.
25 **Špinarová, L. – Špinar, J. – Vítovec, L.**: Co nám přináší studie PARADIGM-HF. *Kardiol Rev Int Med,* 2014, 16, s. 395–397.
26 **Vítovec, J. – Špinar, J.**: VALIANT – valsartan, captopril nebo obojí u infarktu myokardu komplikovaného srdečním selháním a/nebo dysfunkcí levé komory – samostatně ano, společně ne. *Klin Farmakol,* 2004, 18, s. 53–54.
27 **Wanner, C. – Lachin, J. M. – Inzucchi, S. E., et al.**: Empagliflozin and clinical outcomes in patients with type 2 diabetes mellitus, established cardiovascular disease, and chronic kidney disease. *Circulation,* 2018, 137, s. 119–129.
28 **Wiviott, S. D. – Raz, M. – Bonaca, O., et al.**: Dapagliflozin and cardiovascular outcomes in type 2 diabetes. *N Engl J Med,* 2019, 380, s. 347–357.
29 **McMurray, J.**: Přednáška na European Society of Cardiology Congress, 2019.

Doporučení pro užití SGLT2 inhibitorů u pacientů s kardiovaskulárním a renálním rizikem – mezioborový konsenzus

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1 Zdravotnictví ČR: Stručný přehled činnosti oboru diabetologie a endokrinologie za období 2007–2015 NZIS REPORT č. K/1 (09/2016).
2 **Doležal, T.**, farmakoekonom z Institutu pro zdravotní ekonomiku (iHETA). Dostupné z: https://zdravi.euro.cz/clanek/lecba-gliflozin-y-je-ucinna-i-usporna-479526, vyhledáno 6. 3. 2020.
3 SPC Forxiga.
4 SPC Jardiance.
5 SPC Invokana.
6 **Buse, J. B. – Wexler, D. J. – Tsapas, A., et al.**: 2019 Update to: Management of hyperglycemia in type 2 diabetes, 2018. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetes Care*, 2020, 43, s. 487–493.
7 **Cosentino, F. – Grant, P. J. – Aboyans, V., et al.**: 2019 ESC Guidelines on diabetes, pre-diabetes, and cardiovascular diseases developed in collaboration with the EASD. *Eur Heart J*, 2020, 41, s. 255–323.
8 **Sarafidis, P. – Ferro, Ch. J. – Morales, E., et al.**: SGLT-2 inhibitors and GLP-1 receptor agonists for nephroprotection and cardioprotection in patients with diabetes mellitus and chronic kidney disease. A consensus statement by the EURECA-m and the DIABESITY working groups of the ERA-EDTA. *Nephrol Dial Transplant*, 2019, 34, s. 208–230.
9 **Škrha, J. – Pelikánová, T. – Kvapil, M.**: Doporučený postup péče o diabetes mellitus 2. typu. Dostupné z: http://www.diab.cz/dokumenty/standard_lecba_dm_typ_II.pdf, vyhledáno 6. 3. 2020.
10 SPC léčivých přípravků obsahujících účinnou látku metformini hydrochloridum.
11 **Ponikowski, P. – Voors, A. A. – Anker, S. D., et al.**: 2016 ESC Guidelines for the diagnosis and treatment of acute and chronicheart failure. *Eur Heart J*, 2016, 37, s. 2129–2200.

Kardiovaskulární onemocnění a chřipka

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1 **Mamas, M. A. – Fraser, D. – Neyses, L.**: Cardiovascular manifestations associated with influenza virus infection. *Int J Cardiol*, 2008, 130, s. 304–309.
2 **Ross, R.**: Atherosclerosis – an inflammatory disease. *N Engl J Med*, 1999, 340, s. 115–126.
3 **Ridker, P. M. – Hennekens, C. H. – Buring, J. E. –Rifai, N.**: C-reactive protein and other markers of inflammation in the prediction of cardiovascular disease in women. *N Engl J Med*, 2000, 342, s. 836–843.
4 **Van Lenten, B. J. – Hama, S. Y. – De Beer, F. C., et al.**: Anti-inflammatory HDL becomes pro-inflammatory during the acute phase response. Loss of protective effect of HDL against LDL oxidation in aortic wall cell cocultures. *J Clin Invest*, 1995, 96, s. 2758–2767.
5 **Hebsur, S. – Vakil, E. – Oetgen, W. J., et al.**: Influenza and coronary artery disease: Exploring a clinical association with myocardial infarction and analyzing the utility of vaccination in prevention of myocardial infarction. *Rev Cardiovasc Med*, 2014, 15, s. 168–175.
6 **Smeeth, L. – Thomas, S. L. – Hall, A. J., et al.**: Risk of myocardial infarction and stroke after acute infection or vaccination. *N Engl J Med*, 2004, 351, s. 2611–2618.
7 **Madjid, M. – Miller, C. C. – Zarubaev, V. V., et al.**: Influenza epidemics and acute respiratory disease activity are associated with a surge in autopsy-confirmed coronary heart disease death: results from 8 years of autopsies in 34,892 subjects. *Eur Heart J*, 2007, 28, s. 1205–1210.
8 **Kwong, J. C. – Schwartz, K. L. – Campitelli, M. A., et al.**: Acute myocardial infarction after laboratory-confirmed influenza infection. *N Engl J Med*, 2018, 378, s. 345–353.
9 **Warren-Gash, C. – Bhaskaran, K. – Hayward, A., et al.**: Circulating influenza virus, climatic factors, and acute myocardial infarction: a time series study in England and Wales and Hong Kong. *J Infect Dis*, 2011, 203, s. 1710–1718.

10 **Siriwardena, A. N. – Gwini, S. M. – Coupland, C. A. C.**: Influenza vaccination, pneumococcal vaccination and risk of acute myocardial infarction: Matched case – Control study. *CMAJ*, 2010, 182, s. 1617–1623.
11 **Modin, D. – Jørgensen, M. E. – Gislason, G., et al.**: Influenza vaccine in heart failure: cumulative number of vaccinations, frequency, timing, and survival: a Danish nationwide cohort study. *Circulation*, 2019, 139, s. 575–586.
12 **Johnstone, J. – Loeb, M. – Teo, K. K., et al.**: Influenza vaccination and major adverse vascular events in high-risk patients. *Circulation*, 2012, 126, s. 278–286.
13 **Buxton Bridges, C. – Thompson, W. W. – Meltzer, M. I., et al.**: Effectiveness and cost-benefit of influenza vaccination of healthy working adults: A randomized controlled trial. *J Am Med Assoc*, 2000, 284, s. 1655–1663.
14 **Herrera, G. A. – Iwane, M. K. – Cortese, M., et al.**: Influenza vaccine effectiveness among 50–64-year-old persons during a season of poor antigenic match between vaccine and circulating influenza virus strains: Colorado, United States, 2003–2004. *Vaccine*, 2007, 25, s. 154–160.
15 **Gurfinkel, E. P. – De La Fuente, R. – Mendiz, O., et al.**: Flu vaccination in acute coronary syndromes and planned percutaneous coronary interventions (FLUVACS) Study: One-year follow-up. *Eur Heart J*, 2004, 25, s. 25–31.
16 **Gurfinkel, E. P. – De La Fuente, R. L. – Mendiz, O., et al.**: Influenza vaccine pilot study in acute coronary syndromes and planned percutaneous coronary interventions: The FLU Vaccination Acute Coronary Syndromes (FLUVACS) study. *Circulation*, 2002, 105, s. 2143–2147.
17 **Gurfinkel, E. P. – De La Fuente, R. L.**: Two-year follow-up of the FLU Vaccination Acute Coronary Syndromes (FLUVACS) Registry. *Tex Heart Inst J*, 2004, 31, s. 28–32.
18 **Ciszewski, A. – Bilinska, Z. T. – Brydak, L. B., et al.**: Influenza vaccination in secondary prevention from coronary ischaemic events in coronary artery disease: FLUCAD study. *Eur Heart J*, 2008, 29, s. 1350–1358.
19 **Davis, M. M. – Taubert, K. – Benin, A. L., et al.**: Influenza vaccination as secondary prevention for cardiovascular disease. A science advisory from the American Heart Association/American College of Cardiology. *J Am Coll Cardiol*, 2006, 48, s. 1498–1502.

Fixní kombinace antihypertenziv a moderní léčba hypertenze

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1 **Williams, B. – Mancia, G. – Spiering, W., et al.**: 2018 ESH/ESC Guidelines for the management of arterial hypertension. *Eur Heart J*, 2018, 39, s. 3021–3140.
2 **Gradman, A. H. – Perisé, H. – Lefebvre, P., et al.**: Initial combination therapy reduces the risk of cardiovascular events in hypertensive patients: a matched cohort study. *Hypertension*, 2013, 61, s. 309–318.
3 **Kociánová, E. – Václavík, J. – Táborský, M.**: Fixní kombinace v léčbě hypertenze – přehled současných možností. *Kardiologie*, 2014, s. 19–22.
4 **Mu, L. – Mukamal, K. J.**: Treatment intensification for hypertension in US ambulatory medical care. *J Am Heart Assoc*, 2016, 5, pii: e004188.
5 **Hermida, R. C. – Crespo, J. J. – Otero, A., et al.**: Bed time hypertension treatment improves cardiovascular risk reduction: the Hygia Chronotherapy Trial. *Eur Heart J*, 2020, 41, s. 1600.
6 **Xu, W. – Goldberg, S. I. – Shubina, M., et al.**: Optimal systolic blood pressure target, time to intensification, and time to follow-up in treatment of hypertension: population based retrospective cohort study. *BMJ*, 2015, 350, h158.
7 NCD Risk Factor Collaboration (NCD-RisC). Long-term and recent trends in hypertension awareness, treatment, and control in 12 high-income countries: an analysis of 123 nationally representative surveys. *Lancet*, 2019, 394, s. 639–651.
8 **Rapsomaniki, E. – Timmis, A. – George, J., et al.**: Blood pressure and incidence of twelve cardiovascular diseases: lifetime risks, healthy life-years lost, and age-specific associations in 1·25 million people. *Lancet*, 2014, 383, s. 1899-1911, DOI: (10.1016/S0140-6736(14)60685-1) .

Moderní antihypertenzivum a správná intenzifikace jako základ úspěšné léčby

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1 **Williams, B. – Mancia, G. – Spiering, W., et al.**: 2018 ESC/ESH Guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Cardiology (ESC) and the European Society of Hypertension (ESH). *Eur Heart J*, 2018, 39, s. 3021–3104.
2 WHO; World Heart Federation; World Stroke Organization: Global atlas of cardiovascular disease prevention and kontrol. Policies, strategies and interventions. 2011, s. 164. Dostupné z: https://www.who.int/cardiovascular_diseases/publications/atlas_cvd/en/, vyhledáno 19. 8. 2020.
3 WHO Mortality Database. Dostupné z: https://www.who.int/health-info/mortality_data/en/ , vyhledáno 19. 8. 2020.
4 **Cífková, R. – Bruthans, J. – Wohlfart, P., et al.**: 30-year trends in blood pressure, prevalence, awareness, treatment and control of hypertension in the Czech republic. The Czech monica and Czech post-monica Studies. J Hypertens, 2019, 37, s. e47.
5 **Böhm, M. – Schumacher, H. – Laufs, U., et al.**: Effects of nonpersistence with medication on outcomes in high-risk patients with cardiovascular disease. *Am Heart J*, 2013, 166, s. 306–314.e7.
6 **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.
7 **Rea, F. – Corrado, G. – Merlino, L., et al.**: Two- vs. one-drug pharmacotherapy for hypertension. *Eur Heart J*, 2018, 39, s. 3654–3661.
8 **Wanovich, R., et al.**: P-518: Compliance patterns of patients treated with 2 separate antihypertensive agents versus fixed-dose combination therapy. *Am J Hypertens*, 2004, 17, s. 223A.
9 **Gautam, Ch. S. – Saha, L.**: Fixed dose drug combinations (FDCs): rational or irrational: a view point. *Br J Clin Pharmacol*, 2008, 65, s. 795–796.
10 **Widimský, J. – Filipovský, J. – Ceral, J., et al.**: Doporučení pro diagnostiku a léčbu arteriální hypertenze ČSH 2017. *Vnitř Lék*, 2018, 64, s. 771–796.
11 **Guerrero-García, C. – Rubio-Guerra, A. F.**: Combination therapy in the treatment of hypertension. *Drugs in Context*, 2018, 7, s. 212531, Doi 10.7573/dic.212531.
12 **Dahlöf, B. – Sever, P. S. – Poulter, N. R., et al.**: Prevention of cardiovascular events with an antihypertensive regimen of amlodipine adding perindopril as required versus atenolol adding bendroflumethiazide as required, in the Anglo-Scandinavian Cardiac Outcomes Trial-Blood Pressure Lowering Arm (ASCOT-BPLA): a multicentre randomised controlled trial. *Lancet*, 2005, 366, s. 895–906.
13 **PROGRESS Collaborative Group**: Randomised trial of a perindopril-based blood-pressure-lowering regimen among 6,105 individuals with previous stroke or transient ischaemic attack. *Lancet*, 2001, 358, s. 1033–1041.
14 **Patel, A. – ADVANCE Collaborative Group**: Effects of a fixed combination of perindopril and indapamide on macrovascular and microvascular outcomes in patients with type 2 diabetes mellitus (the ADVANCE trial): a randomised controlled trial. *Lancet*, 2007, 370, s. 829–840.
15 **Tóth, K. – Investigators PIANIST**: Antihypertensive efficacy of triple combination perindopril/indapamide plus amlodipine in high-risk hypertensives: results of the PIANIST study (Perindopril-Indapamide plus AmlodipiNe in high rISk hyperTensive patients). *Am J Cardiovasc Drugs*, 2014, 14, s. 137–145.
16 **Chalmers, J. – Arima, H. – Woodward, M., et al.**: Effects of combination of perindopril, indapamide, and calcium channel blockers in patients with type 2 diabetes mellitus. Results from the action in diabetes and vascular disease: Preterax and Diamicron Controlled Evaluation (ADVANCE) Trial. *Hypertension*, 2014, 63, s. 259–264.

Fixní kombinace ezetimibu a atorvastatinu

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1 **Baigent, C. – Keech, A. – Kearney, P. M., et al.**; Cholesterol Treatment Trialists' Collaborators: Efficacy and safety of cholesterol-lowering treatment: prospective meta-analysis of data from 90,056 participants in 14 randomised trials of statins. *Lancet*, 2005, 366, s. 1267–1278.
2 **Mills, E. J. – Wu, P. – Chong, G., et al.**: Efficacy and safety of statin treatment for cardiovascular disease: a network meta-analysis of 170,255 patients from 76 randomized trials. *QJM*, 2011, 104, s. 109–124.
3 **Taylor, F. – Huffman, M. D. – Macedo, A. F., et al.**: Statins for the primary prevention of cardiovascular disease. *Cochrane Database Syst Rev*, 2013, s. CD004816.
4 **Silverman, M. G. – Ference, B. A. – Im, K., et al.**: Association between lowering LDL-C and cardiovascular risk reduction among different therapeutic interventions: a systematic review and meta-analysis. *JAMA*, 2016, 316, s. 1289–1297.
5 **Mach, F. – Baigent, C. – Catapano, A. L., et al.**: 2019 ESC/EAS Guidelines for the management of dyslipidaemias: lipid modification to reduce cardiovascular risk. *Eur Heart J*, 2020, 41, s. 111–188.
6 Dostupné z: http://www.sukl.cz/download/spc/SPC23626.pdf, vyhledáno 17. 9. 2020.
7 **DiNicolantonio, J. J. – Lavie, C. J. – Serebruany, V. L., et al.**: Statin wars: the heavy weight match–atorvastatin versus rosuvastatin for the treatment of atherosclerosis, heart failure, and chronic kidney disease. *Postgrad Med*, 2013, 125, s. 7–16.
8 **Hey-Hadavi, J. H. – Kuntze, E. – Luo, D., et al.**: Tolerability of atorvastatin in a population aged > or =65 years: a retrospective pooled analysis of results from fifty randomized clinical trials. *Am J Geriatr Pharmacother*, 2006, 4, s. 112–122.
9 **Nissen, S. E. – Tuzcu, E. M. – Schoenhagen, P., et al.**; REVERSAL Investigators: Effect of intensive compared with moderate lipid-lowering therapy on progression of coronary atherosclerosis: a randomized controlled trial. *JAMA*, 2004, 291, s. 1071–1080.
10 **Nicholls, S. J. – Ballantyne, C. M. – Barter, P. J., et al.**: Effect of two intensive statin regimens on progression of coronary disease. *N Engl J Med*, 2011, 365, s. 2078–2087.
11 **Taylor, A. J. – Kent, S. M. – Flaherty, P. J., et al.**: ARBITER: Arterial Biology for the Investigation of the Treatment Effects of Reducing Cholesterol: a randomized trial comparing the effects of atorvastatin and pravastatin on carotid intima medial thickness. *Circulation*, 2002, 106, s. 2055–2060.
12 **Smilde, T. J. – van Wissen, S. – Wollersheim, H., et al.**: Effect of aggressive versus conventional lipid lowering on atherosclerosis progression in familial hypercholesterolaemia (ASAP): a prospective, randomised, double-blind trial. *Lancet*, 2001, 357, s. 577–581.
13 **Sever, P. S. – Dahlöf, B. – Poulter, N. R., et al.**; ASCOT investigators: Prevention of coronary and stroke events with atorvastatin in hypertensive patients who have average or lower-than-average cholesterol concentrations, in the Anglo-Scandinavian Cardiac Outcomes Trial-Lipid Lowering Arm (ASCOT-LLA): a multicentre randomised controlled trial. *Lancet*, 2003, 361, s. 1149–1158.
14 **Colhoun, H. M. – Betteridge, D. J. – Durrington, P. N., et al.**; CARDS investigators: Primary prevention of cardiovascular disease with atorvastatin in type 2 diabetes in the Collaborative Atorvastatin Diabetes Study (CARDS): multicentre randomised placebo-controlled trial. *Lancet*, 2004, 364, s. 685–696.
15 **Cannon, C. P. – Braunwald, E. – McCabe, C. H., et al.**; Pravastatin or Atorvastatin Evaluation and Infection Therapy-Thrombolysis in Myocardial Infarction 22 Investigators: Intensive versus moderate lipid lowering with statins after acute coronary syndromes. *N Engl J Med*, 2004, 350, s. 1495–1504.
16 **Schwartz, G. G. – Olsson, A. G. – Ezekowitz, M. D., et al.**; Myocardial Ischemia Reduction with Aggressive Cholesterol Lowering (MIRACL) Study Investigators: 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.
17 **Amarenco, P. – Bogousslavsky, J. – Callahan, A. 3rd., et al.**; Stroke Prevention by Aggressive Reduction in Cholesterol Levels (SPARCL) Investigators: High-dose atorvastatin after stroke or transient ischemic attack. *N Engl J Med*, 2006, 355, s. 549–559.
18 **LaRosa, J. C. – Grundy, S. M. – Waters, D. D., et al.**; Treating to New Targets (TNT) Investigators: Intensive lipid lowering with atorvastatin in patients with stable coronary disease. *N Engl J Med*, 2005, 352, s. 1425–1435.
19 **Koren, M. J. – Hunninghake, D. B.**; ALLIANCE Investigators: Clinical outcomes in managed-care patients with coronary heart disease treated aggressively in lipid-lowering disease management clinics:

the alliance study. *J Am Coll Cardiol*, 2004, 44, s. 1772–1779.
20 **Pedersen, T. R. – Faergeman, O. – Kastelein, J. J., et al.**; Incremental Decrease in End Points Through Aggressive Lipid Lowering (IDEAL) Study Group: High-dose atorvastatin vs usual-dose simvastatin for secondary prevention after myocardial infarction: the IDEAL study: a randomized controlled trial. *JAMA*, 2005, 294, s. 2437–2445.
21 **Ferreira, A. M. – Marques da Silva, P.**: Defining the place of ezetimibe/atorvastatin in the management of hyperlipidemia. *Am J Cardiovasc Drugs*, 2017, 17, s. 169–181.
22 Dostupné z: http://www.sukl.cz/download/spc/SPC1994.pdf, vyhledáno 17. 9. 2020.
23 **Foody, J. M. – Toth, P. P. – Tershoakovec, T. M., et al.**: Efficacy and safety of ezetimibe plus atorvastatin therapy. *Clin Lipidol*, 2014, 9, s. 441–470.
24 **Ballantyne, C. M. – Houri, J. – Notarbartolo, A., et al.**; Ezetimibe Study Group: Effect of ezetimibe coadministered with atorvastatin in 628 patients with primary hypercholesterolemia: a prospective, randomized, double-blind trial. *Circulation*, 2003, 107, s. 2409–2415.
25 **Gagné, C. – Bays, H. E. – Weiss, S. R., et al.**; Ezetimibe Study Group: Efficacy and safety of ezetimibe added to ongoing statin therapy for treatment of patients with primary hypercholesterolemia. *Am J Cardiol*, 2002, 90, s. 1084–1091.
26 **Pearson, T. A. – Denke, M. A. – McBride, P. E., et al.**: A community-based, randomized trial of ezetimibe added to statin therapy to attain NCEP ATP III goals for LDL cholesterol in hypercholesterolemic patients: the ezetimibe add-on to statin for effectiveness (EASE) trial. *Mayo Clin Proc*, 2005, 80, s. 587–595.
27 **Cruz-Fernández, J. M. – Bedarida, G. V. – Adgey, J. R., et al.**: Efficacy and safety of ezetimibe co-administered with ongoing atorvastatin therapy in achieving low-density lipoprotein goal in patients with hypercholesterolemia and coronary heart disease. *Int J Clin Pract*, 2005, 59, s. 619–627.
28 **Gagné, C. – Gaudet, D. – Bruckert, E.**; Ezetimibe Study Group: Efficacy and safety of ezetimibe coadministered with atorvastatin or simvastatin in patients with homozygous familial hypercholesterolemia. *Circulation*, 2002, 105, s. 2469–2475.
29 **Athyros, V. G. – Tziomalos, K. – Kakafika, A. I., et al.**: Effectiveness of ezetimibe alone or in combination with twice a week atorvastatin (10 mg) for statin intolerant high-risk patients. *Am J Cardiol*, 2008, 101, s. 483–485.
30 **Conard, S. E. – Bays, H. E. – Leiter, L. A., et al.**: Efficacy and safety of ezetimibe added on to atorvastatin (20 mg) versus uptitration of atorvastatin (to 40 mg) in hypercholesterolemic patients at moderately high risk for coronary heart disease. *Am J Cardiol*, 2008, 102, s. 1489–1494.
31 **Leiter, L. A. – Bays, H. – Conard, S., et al.**: Efficacy and safety of ezetimibe added on to atorvastatin (40 mg) compared with uptitration of atorvastatin (to 80 mg) in hypercholesterolemic patients at high risk of coronary heart disease. *Am J Cardiol*, 2008, 102, s. 1495–1501.
32 **Stein, E. – Stender, S. – Mata, P., et al.**; Ezetimibe Study Group: Achieving lipoprotein goals in patients at high risk with severe hypercholesterolemia: efficacy and safety of ezetimibe co-administered with atorvastatin. *Am Heart J*, 2004, 148, s. 447–455.
33 **Zieve, F. – Wenger, N. K. – Ben-Yehuda, O., et al.**: Safety and efficacy of ezetimibe added to atorvastatin versus up titration of atorvastatin to 40 mg in patients > or = 65 years of age (from the ZETia in the ELDerly [ZETELD] study). *Am J Cardiol*, 2010, 105, s. 656–663.
34 **Bays, H. E. – Averna, M. – Majul, C., et al.**: Efficacy and safety of ezetimibe added to atorvastatin versus atorvastatin uptitration or switching to rosuvastatin in patients with primary hypercholesterolemia. *Am J Cardiol*, 2013, 112, s. 1885–1895.
35 **Baigent, C. – Landray, M. J. – Reith, C., et al.**; SHARP Investigators: 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.
36 **Rossebø, A. B. – Pedersen, T. R. – Boman, K., et al.**; SEAS Investigators: Intensive lipid lowering with simvastatin and ezetimibe in aortic stenosis. *N Engl J Med*, 2008, 359, s. 1343–1356.
37 **Cannon, C. P. – Blazing, M. A. – Giugliano, R. P., et al.**; IMPROVE-IT Investigators: Ezetimibe added to statin therapy after acute coronary syndromes. *N Engl J Med*, 2015, 372, s. 2387–2397.
38 **Giugliano, R. P. – Cannon, C. P. – Blazing, M. A., et al.**; IMPROVE-IT (Improved Reduction of Outcomes: Vytorin Efficacy International Trial) Investigators: Benefit of adding ezetimibe to statin therapy on cardiovascular outcomes and safety in patients with versus without diabetes mellitus: results from IMPROVE-IT (Improved reduction of outcomes: vytorin efficacy international trial). *Circulation*, 2018, 137, s. 1571–1582.
39 **Bonaca, M. P. – Gutierrez, J. A. – Cannon, C., et al.**: Polyvascular disease, type 2 diabetes, and long-term vascular risk: a secondary analysis of the IMPROVE-IT trial. *Lancet Diabetes Endocrinol*, 2018, 6, s. 934–943.
40 **Eisen, A. – Cannon, C. P. – Blazing, M. A., et al.**; IMPROVE-IT (IMProved Reduction of Outcomes: Vytorin Efficacy International Trial) Investigators: The benefit of adding ezetimibe to statin therapy in patients with prior coronary artery bypass graft surgery and acute coronary syndrome in the IMPROVE-IT trial. *Eur Heart J*, 2016, 37, s. 3576–3584.
41 **Bohula, E. A. – Morrow, D. A. – Giugliano, R. P., et al.**: Atherothrombotic risk stratification and ezetimibe for secondary prevention. *J Am Coll Cardiol*, 2017, 69, s. 911–921.
42 **Tsujita, K. – Sugiyama, S. – Sumida, H., et al.**; PRECISE–IVUS Investigators: Impact of dual lipid-lowering strategy with ezetimibe and atorvastatin on coronary plaque regression in patients with percutaneous coronary intervention: the multicenter randomized controlled PRECISE-IVUS trial. *J Am Coll Cardiol*, 2015, 66, s. 495–507.
43 **Tsujita, K. – Yamanaga, K. – Komura, N., et al.**; PRECISE-IVUS Investigators: Lipid profile associated with coronary plaque regression in patients with acute coronary syndrome: Subanalysis of PRECISE-IVUS trial. *Atherosclerosis*, 2016, 251, s. 367–372.
44 **Hougaard, M. – Hansen, H. S. – Thayssen, P., et al.**: Influence of ezetimibe in addition to high-dose atorvastatin therapy on plaque composition in patients with ST-segment elevation myocardial infarction assessed by serial: Intravascular ultrasound with iMap: the OCTIVUS trial. *Cardiovasc Revasc Med*, 2017, 18, s. 110–117.
45 **Luo, P. – Wang, L. – Zhu, H., et al.**: Impact of atorvastatin combined with ezetimibe for the treatment of carotid atherosclerosis in patients with coronary heart disease. *Acta Cardiol Sin*, 2016, 32, s. 578–585.
46 **Wang, J. – Ai, X. B. – Wang, F., et al.**: Efficacy of ezetimibe combined with atorvastatin in the treatment of carotid artery plaque in patients with type 2 diabetes mellitus complicated with coronary heart disease. *Int Angiol*, 2017, 36, s. 467–473.
47 Dostupné z: http://www.sukl.cz/modules/medication/detail.php?code=0244742&tab=texts, vyhledáno 17. 9. 2020.
48 **Luo, L. – Yuan, X. – Huang, W., et al.**: Safety of coadministration of ezetimibe and statins in patients with hypercholesterolaemia: a meta-analysis. *Intern Med J*, 2015, 45, s. 546–557.

SGLT2 inhibitory v primární prevenci u pacientů s diabetem 2. typu

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1 **Buse, J. B. – Wexler, D. J. – Tsapas, A., et al.**: 2019 update to: Management of hyperglycaemia in type 2 diabetes, 2018. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetologia*, 2020, 63, s. 221–228.
2 **Davies, M. J. – D'Alessio, D. A. – Fradkin, J., et al.**: Management of hyperglycaemia in type 2 diabetes, 2018. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetologia*, 2018, 61, s. 2461–2498.
3 **Ponikowski, P. – Voors, A. A. – Anker, S. D., et al.**: 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) Developed with the special contribution of the Heart Failure Association (HFA) of the ESC. *Eur Heart J*, 2016, 37, s. 2129–2200.
4 **Seferovic, P. M. – Petrie, M. C. – Filippatos, G. S., et al.**: Type 2 diabetes mellitus and heart failure: a position statement from the Heart Failure Association of the European Society of Cardiology. *Eur J Heart Fail*, 2018, 20, s. 853–872.
5 **Heerspink, H. J. – Perkins, B. A. – Fitchett, D. H., et al.**: Sodium glucose cotransporter 2 inhibitors in the treatment of diabetes mellitus: cardiovascular and kidney effects, potential mechanisms, and clinical applications. *Circulation*, 2016, 134, s. 775–772.
6 **Wiviott, S. D. – Raz, I. – Bonaca, M. P., et al.**: Dapagliflozin and cardiovascular outcomes in type 2 diabetes. *N Engl J Med*, 2019, 380, s. 347–357.
7 **Mahaffey, K. W. – Neal, B. – Perkovic, V., et al.**: Canagliflozin for primary and secondary prevention of cardiovascular events: results from the CANVAS Program (Canagliflozin Cardiovascular Assessment Study). *Circulation*, 2018, 137, s. 323–334.
8 **Neal, B. – Perkovic, V. – Mahaffey, K. W., et al.**: Canagliflozin and cardiovascular and renal events in type 2 diabetes. *N Engl J Med*, 2017, 377, s. 644–657.
9 **Zinman, B. – Wanner, C. – Lachin, J. M., et al.**: Empagliflozin, cardiovascular outcomes, and mortality in type 2 diabetes. *N Engl J Med*, 2015, 373, s. 2117–2128.
10 **Zelniker, T. A. – Wiviott, S. D. – Raz, I., et al.**: SGLT2 inhibitors for primary and secondary prevention of cardiovascular and renal outcomes in type 2 diabetes: a systematic review and meta-analysis of cardiovascular outcome trials. *Lancet*, 2019, 393, s. 31–39.
11 **McMurray, J. J. V. – Solomon, S. D. – Inzucchi, S. E., et al.**: Dapagliflozin in patients with heart failure and reduced ejection fraction. *N Engl J Med*, 2019, 381, s. 1995–2008.
12 **Packer, M. – Anker, S. D. – Butler, J., et al.**: Cardiovascular and renal outcomes with empagliflozin in heart failure. *N Engl J Med*, 2020, 383, s. 1413–1424.
13 **Heerspink, H. J. L. – Stefansson, B. V. – Correa-Rotter, R., et al.**: Dapagliflozin in patients with chronic kidney disease. *N Engl J Med*, 2020, 383, s. 1436–1446.
14 **Perkovic, V. – Jardine, M. J. – Neal, B., et al.**: Canagliflozin and renal outcomes in type 2 diabetes and nephropathy. *N Engl J Med*, 2019, 380, s. 2295–2306.

Výsledky studie EXCITE, představení přípravku Valtricom

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1 **Kearney, P. M. – Whelton, M. – Reynolds, K., et al.**: Global burden of hypertension: analysis of world wide data. *Lancet*, 2005, 365, s. 217–223.
2 **Williams, B. – Mancia, G. – Spiering, W., et al.**: 2018 ESC/ESH Guidelines for the management of arterial hypertension. *Eur Heart J*, 2018, 39, s. 3021–3104.
3 **Mensah, G. A. – Bakris, G.**: Treatment and control of high blood pressure in adults. *Cardiol Clin*, 2010, 28, s. 609–622.
4 **Durand, H. – Hayes, P. – Morrissey, E. C., et al.**: Medication adherence among patients with apparent treatment-resistant hypertension: systematic review and meta-analysis. *J Hypertens*, 2017, 35, s. 2346–2357.
5 **Weisser, B. – Predel, H-G. – Gillessen, A., et al.**: Single pill regimen leads to better adherence and clinical outcome in daily practice in patients suffering from hypertension and/or dyslipidemia: results of a meta-analysis. *High Blood Press Cardiovasc Prev*, 2020, 27, s. 157–164.
6 **Messerli, F. H. – Bangalore, S. – Bavishi, C., et al.**: Angiotensin-converting enzyme inhibitors in hypertension. *J Am Coll Cardiol*, 2018, 71, s. 1474–1482.
7 **Philipp, T. – Smith, T. R. – Glazer, R., et al.**: Two multicenter, 8-week, randomized, double-blind, placebo-controlled, parallel-group studies evaluating the efficacy and tolerability of amlodipine and valsartan in combination and as monotherapy in adult patients with mild to moderate Essentials hypertension. *Clin Ther*, 2007, 29, s. 563–580.
8 **Destro, M. – Luckow, A. – Samson, M., et al.**: Efficacy and safety of amlodipine/valsartan compared with amlodipine monotherapy in patients with stage 2 hypertension: a randomized, double-blind, multicenter study: the EX-EFFeCTS Study. *J Am Soc Hypertens*, 2008, 2, s. 294–302.
9 **Calhoun, D. A. – Lacourcière, Y. – Chiang, Y. T., et al.**: Triple antihypertensive therapy with amlodipine, valsartan, and hydrochlorothiazide: a randomized clinical trial. *Hypertension*, 2009, 54, s. 32–39.
10 **Sison, J. – Assaad-Khalil, S. H. – Najem, R., et al.**: Real-world clinical experience of amlodipine/valsartan and amlodipine/valsartan/hydrochlorothiazide in hypertension: the EXCITE study. *Curr Med Res Opin*, 2014, 30, s. 1937–1945.

Úskalí léčby u obézního hypertonika s tendencí k otokům dolních končetin – kazuistika

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1 **Flegal K. M. – Kit, B. K. – Orpana, H., et al.**: Association of all-cause mortality with overweight and obesity using standard body mass index categories: a systematic review and meta-analysis. *JAMA*, 2013, 309, s. 71–82.
2 **Wilson, P. W. F. – D'Agostino, R. B. – Sullivan, L., et al.**: Overweight and obesity as determinants of cardiovascular risk: the Framingham experience. *Arch Intern Med*, 2002, 162, s. 1867–1872.
3 **Cífková, R. – Skodová, Z. – Lánská, V., et al.**: Prevalence, awareness, treatment, and control of hypertension in the Czech Republic. Results of two nationwide cross-sectional surveys in 1997/1998 and 2000/2001, Czech Post-MONICA Study. *J Hum Hypertens*, 2004, 18, s. 571–579.
4 **Schiavon, C. A. – Bersch-Ferreira, A. C. – Santucci, E. V., et al.**: Effects of bariatric surgery in obese patients with hypertension the GATEWAY randomized trial (gastric bypass to treat obese patients with steady hypertension). *Circulation*, 2018, 137, s. 1132–1142.
5 **Williams, B. – Mancia, G. – Spiering, W., et al.**: 2018 Practice Guidelines for the Management of Arterial Hypertension of the European Society of Cardiology and the European Society of Hypertension ESC/ESH Task Force for the Management of Arterial Hypertension. 2018, 36, doi:10.1097/HJH.0000000000001961.
6 **Kawarazaki, W. – Fujita, T.**: The role of aldosterone in obesity-related hypertension. *Am J Hypertens*, 2016, 29, s. 415–423.
7 **Schütten, M. T. J. – Houben, A. J. H. M. – De Leeuw, P. W., et al.**: The link between adipose tissue renin-angiotensin-aldosterone system signaling and obesity-associated hypertension. *Physiology*, 2017, 32, s. 197–209.
8 **Shen, L. – Wang, S. – Ling, Y., et al.**: Association of C1q/TNF-related protein-1 (CTRP1) serum levels with coronary artery disease. *J Int Med Res*, 2019, 47, s. 2571–2579.
9 **Alexopoulos, N. – Katritsis, D. – Raggi, P.**: Visceral adipose tissue as a source of inflammation and promoter of atherosclerosis. *Atherosclerosis*, 2014, 233, s. 104–112.
10 **Burton, L. A. – Sumukadas, D.**: Optimal management of sarcopenia. *Clin Interv Aging*, 2010, 5, s. 217–228.
11 **Witham, M. D. – Sumukadas, D. – Mcmurdo, M. E. T.**: ACE inhibitors for sarcopenia – As good as exercise training? *Age Ageing*, 2008, 37, s. 363–365.
12 **Burnier, M. – Bakris, G. – Williams, B.**: Redefining diuretics use in hypertension: Why select a thiazide-like diuretic? *J Hypertens*, 2019, 37, s. 1574–1586.

Důslednější intenzifikace a větší bezpečnost léčby při užití inzulinu glargin 300 U/ml – kazuistika

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1 **Ritzel, R. – Roussel, R. – Bolli, G. B., et al.**: Patient-level meta-analysis of the EDITION 1, 2 and 3 studies: glycaemic control and hypoglycaemia with new insulin glargine 300 U/ml versus glargine 100 U/ml in people with type 2 diabetes. *Diabetes Obes Metab*, 2015, 17, s. 859–867.
2 **Bolli, G. B. – Riddle, M. C. – Bergenstal, R. M., et al.**: New insulin glargine300 U/ml compared with glargine100 U/ml in insulin-naive people with type 2 diabetes on oral glucose-lowering drugs: a randomized controlled trial (EDITION 3). *Diabetes Obes Metab*, 2015, 17, s. 386–394.
3 **Bailey, T. S. – Wu, J. – Zhou, F. L., et al.**: Switching to insulin glargine 300 units/mL in real-world older patients with type 2 diabetes (DELIVER 3). *Diabetes Obes Metab*, 2019, 21, s. 2384–2393.
4 **Rosenstock, J. – Cheng, A. – Ritzel, R., et al.**: More similarities than differences testing insulin glargine 300 units/mL versus insulin degludec 100 units/mL in insulin-naive type 2 diabetes: the randomized head-to-head BRIGHT Trial. *Diabetes Care*, 2018, 41, s. 2147–2154.
5 **Philis-Tsimikas, A. – Klonoff, D. C. – Khunti, K., et al.**: Risk of hypoglycaemia with insulin degludec versus insulin glargine U300 in insulin-treated patients with type 2 diabetes: the randomised, head-to-head CONCLUDE trial. *Diabetologia*, 2020, 63, s. 698–710.
6 **DeVries, J. H. – Bailey, T. S. – Bhargava, A., et al.**: Day-to-day fasting self-monitored blood glucose variability is associated with risk of hypoglycaemia in insulin-treated patients with type 1 and type 2 diabetes: A post hoc analysis of the SWITCH Trials. *Diabetes Obes Metab*, 2019, 21, s. 622–630.
7 **Gorst, C. – Kwok, C. S. – Aslam, S., et al.**: Long-term glycemic variability and risk of adverse outcomes: a systematic review and meta-analysis. *Diabetes Care*, 2015, 38, s. 2354–2369.
8 **Levy, J. C. – Davies, M. J. – Holman, R. R.**: Continuous glucose monitoring detected hypoglycaemia in the treating to target in type 2 diabetes trial (4-T). *Diabetes Res Clin Pract*, 2017, 131, s. 161–168.
9 **Haluzík, M. – Cheng, A. – Müller-Wieland, D., et al.**: Differential glycaemic control with basal insulin glargine 300 U/mL versus degludec 100 U/mL according to kidney function in type 2 diabetes: A subanalysis from the BRIGHT trial. *Diabetes Obes Metab*, 2020, 22, s. 1369–1377.
10 **Charbonnel, B. – Aroda, V. R. – Westerbacka, J., et al.**: Differences inHbA_{1c} reduction between insulin glargine 300 U/mL (Gla-300) and insulin degludec100 U/mL (IDeg-100) in adults ≥ 70 years of age with T2DM in the BRIGHT trial. *Diabetes*, 2019, 68, suppl. 1.
11 **Cheng, A. – Harris, S. – Giorgino, F., et al.**: Similar glycaemic control and less hypoglycaemia during active titration after insulin initiation with glargine 300 units/mL and degludec 100 units/mL: A subanalysis of the BRIGHT study. *Diabetes Obes Metab*, 2020, 22, s. 346–354.

Léčba HIV, současné možnosti a budoucnost

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1 Metodický návod k řešení problematiky infekce HIV/AIDS v České republice. *Věstník MZ ČR*, částka 10/2016, str. 2. Dostupné z: http://www.mzcr.cz/dokumenty/vestnik-c10/2016_13122_3442_11.html, vyhledáno 1. 7. 2020.
2 **Snopková, S. – Rozsypal, H. – Aster, V. – Sedláček, D. – Dlouhý, P. – Kapla, J. – Jilich, D. – Veselý, D. – Jerhotová, Z. – Olbrechtová, L. – Zjevíková, A. – Zlámal, M.**: Doporučený postup péče o dospělé infikované HIV a postexpoziční profylaxe infekce HIV, 2019. Dostupné z: www.infekce.cz/DPHIV19.htm, vyhledáno 1. 7. 2020.
3 **Vernazza, P.** (Schweizerische Ärztezeitung): Die HIV-Prävention wird einfacher – also komplexer! *HIV*REPORT*DE*, 2008, 89, s. 5. Dostupné z: www.hivreport.de/sites/default/files/documents/2008_02_hivreport.pdf, vyhledáno 1. 7. 2020.
4 Can I transmit HIV I have an undetectable viral load? Centers for Disease Control and Prevention. Dostupné z: www.cdc.gov/hiv/basics/livingwithhiv/protecting-others.html, vyhledáno 1. 7. 2020.
5 **Barré-Sinoussi, F., et al.**: Expert consensus statement on the science of HIV in the context of Criminal Law. *J Int AIDS Soc*, 2018, 21, s. e25161. Český překlad dostupný z: www.infekce.cz/Standardy/ExpProhl18CZ.pdf, vyhledáno 1. 7. 2020.
6 Understanding fast-track. Accelerating action to end the AIDS epidemic by 2030. 2015, 1–12. Dostupné z: www.unaids.org/sites/default/files/media_asset/201506_JC2743_Understanding_FastTrack_en.pdf, vyhledáno 1. 7. 2020.
7 **Malý, M.**, prezentace 16. 6. 2020 na zasedání koordinační skupiny HIV Fast Track Cities, Praha.
8 Islatravir (MK-8591) with doravirine and lamivudine in participants infected with human immunodeficiency virus type 1 (MK-8591-011). Dostupné z: www.clinicaltrials.gov/ct2/show/NCT03272347, vyhledáno 1. 7. 2020.
9 Study evaluating the efficacy, safety, and tolerability of switching to long-acting cabotegravir plus long-acting rilpivirine from current antiretroviral regimen in virologically suppressed HIV-1-infected adults. Dostupné z: www.clinicaltrials.gov/ct2/show/NCT02951052, vyhledáno 1. 7. 2020.
10 Attachment inhibitor comparison in heavily treatment experienced patients. Dostupné z: www.clinicaltrials.gov/ct2/show/NCT02362503, vyhledáno 1. 7. 2020.
11 **Daar, E., et al.**: Dose-response relationship of subcutaneous long- acting HIV capsid inhibitor GS-6207. CROI 2020, Boston. Poster, abstrakt 469.
12 **Addo, M. M.**: The latent HIV1 reservoir. 17th European AIDS Clinical Society (EACS) Conference, 6.–9. 11. 2019, Basilej, Švýcarsko.
13 **Barouch, D., et al.**: Combined active and passive immunization in SHIV-INFECTED rhesus monkeys. CROI 2020, Boston. Poster, abstrakt 78.
14 **Tiffon, C., et al.**: The histone deacetylase inhibitors vorinostat and romidepsin downmodulate IL-10 expression in cutaneous T-cell lymphoma cells. *Br J Pharmacol*, 2011, 162, s. 1590–1602.
15 Safety and Efficacy Study of Vaccine Schedule With Ad26.Mos.HIV and MVA-Mosaic in Human Immunodeficiency Virus (HIV)-Infected Adults. Dostupné z: www.clinicaltrials.gov/ct2/show/NCT02919306, vyhledáno 2. 7. 2020.
16 **Hoffmann, Ch. – Rockstroh, J. K., ed.**: HIV 2015/16. Dostupné z: https://www.hivbook.com/wp-content/uploads/2016/04/hiv-2015-16-complete-1.pdf, vyhledáno 1. 7. 2020.

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1 Dostupné z: https://www.unaids.org/en/resources/documents/2020/core-epidemiology-slides, vyhledáno 6. 10. 2020.
2 Dostupné z: http://www.szu.cz/uploads/documents/CeM/HIV_AIDS/rocni_zpravy/2020/HIV_AIDS_08_2020.pdf, vyhledáno 6. 10. 2020.
3 The Joint United Nations Programme on HIV/AIDS. 90–90-90 An ambitious treatment target to help end the AIDS epidemic. 2014, JC2684. Dostupné z: https://www.unaids.org/sites/default/files/media_asset/90-90-90_en.pdf, vyhledáno 7. 10. 2020.
4 **Harris, T. G. – Rabkin, M. – El-Sadr, W. M.:** Achieving the fourth 90: healthy aging for people living with HIV. *AIDS*, 2018, 32, s. 1563–1569.
5 **Pelchen-Matthews, A., et al.**: Aging and the evolution of comorbidities among HIV-positive individuals in a European cohort. *AIDS*, 2018, 32, s. 2405–2416.
6 **Mladěnka, A. – Kubečková, A. – Sláma, J.**: Aktuálnípoznatky o HPV infekci. *Čes Gynek*, 2016, 81, s. 369–375.

Případ lupénky léčené risankizumabem v době epidemie COVID-19 – kazuistika

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1 **Vašků, V.**: *Psoriáza*. Maxdorf Jessenius, Praha, 2015, s. 1–128.
2 **Cetkovská, P. – Kojanová, M. – Arenberger, P. – Fabianová, J.**: Současný stav moderní léčby psoriázy – aktualizovaná doporučení ČDS JEP k cílené léčbě závažné chronické psoriázy. *Čes-slov Derm*, 2019, 94, s. 135–162.
3 **Banaszczyk, K.**: Risankizumab in the treatment of psoriasis – literature review. *Reumatologia*, 2019, 57, s. 158–162.
4 **Shereen, M. A. – Khan, S. – Kazmi, A., et al.**: COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. *J Advan Res*, 2020, 24, s. 91–98.
5 **Lukassen, S. – Chua, R. – Trefzer, T., et al.**: SARS-CoV-2 receptor ACE2 and TMPRSS2 are primarily expressed in bronchial transient secretory cells. *EMBO Journal*, 2020, https://www.embopress.org/ doi/10.15252/embj.20105114.
6 Dostupné z: https://www.dw.com/en/how-the-novel-coronavirus-attacks-our-entire-body/a-53389908, vyhledáno 14. 5. 2020.
7 **Bashyam, A. M. – Feldman, S. R.**: Should patients stop thein biologic treatment during the COVID-19 pandemic. *J Dermatol Treat*, 2020, DOI: 10.1080/09546634.2020.1742438.
8 **Hussell, T. – Pennycook, A. – Openshaw, P. J.**: Inhibition of tumor necrosis factor reduces the severity of virus-specific lung immunopathology. *Eur J Immunol*, 2001, 31, s. 2566–2573.
9 **Shale, M. – Czub, M. – Kaplan, G. G., et al.**: Anti-tumor necrosis factor therapy and influenza: keeping it in perspective. *Therap Adv Gastroenterol*, 2010, 3, s. 173–177.
10 **Ma, W. T. – Yao, X. T. – Peng, Q., et al.**: The protective and pathogenic roles of IL-17 in viral infections: friend or foe? *Open Biology*, 2019, 9, 190109, DOI: 10.1098/rsob.190109.
11 **Furer, V. – Zisman, D. – Kaufman, I., et al.**: Immunogenicity and safety of vaccination against seasonal influenza vaccine in patients with psoriatic arthritis treated with secukinumab. *Vaccine*, 2020, 38, s. 847–851.
12 **Kalb, R. E. – Fiorentino, D. F. – Lebwohl, M. G., et al.**: Risk of serious infection with biologic and systemic treatment of psoriasis results from the Psoriasis Longitudinal Assessment and Registry (PSOLAR). *JAMA Dermatol*, 2015, 151, s. 961–969.

Aktuální léčba virových hepatitid

prof. MUDr. Petr Husa, CSc. Klinika infekčních chorob LF MU a FN Brno

1 Wordl Health Organization. Guidelines for the screening, care and treatment of persons with chronic hepatitis C infection. Updated version, duben 2016. Dostupné z: www.who.int/hiv/topics/hepatitis/en, vyhledáno 15. 5. 2020.
2 **Urbánek, P.**: *Hepatitida C*. Praha, Mladá fronta, 2017.
3 EASL recommendations on treatment of hepatitis C 2018. *J Hepatol*, 2018, dostupné z: doi.org/10.1016/j.jhep.2018.03.026, vyhledáno 15. 5. 2020.
4 **Husa, P. jr. – Husa, P.**: Virová hepatitida A – možný diferenciálně diagnostický a terapeutický problém. *Vnitř Lék*, 2017, 63, s. 498–501.
5 **Husa, P. – Šperl, J. – Urbánek, P., et al.**: Doporučený postup diagnostiky a léčby infekce virem hepatitidy B. *Gastroent Hepatol*, 2017, 71, s. 419–437.
6 **Husa, P.**: Současná léčba hepatitidy C. *Aktuální medicína*, 2018, 1, s. 5–7.
7 **Husa, P.**: Aktuální farmakoterapie virových hepatitid. *Klin Farmakol Farm*, 2019, 33, s. 32–37.
8 **Urbánek, P. – Fraňková, S. – Husa, P., et al.**: Standardní diagnostický a terapeutický postup u chronické infekce virem hepatitidy C. *Gastroent Hepatol*, 2019, 73, s. 101–125.
9 **Husa, P.**: Pangenotypové režimy léčby u pacientů s hepatititidou C. *Farmakoter Revue*, 2019, 4, s. 553–556.
10 **Husa, P.**: Současný pohled na diagnostiku a léčbu hepatitidy B. *Vnitř Lék*, 2019, 65, s. 546–551.
11 **Mihalčin, M. – Husa, P.**: Vývoj poznatků o nemoci způsobené virem hepatitidy E. *Vnitř Lék*, 2019, 65, s. 564–569.

Diferenciální diagnostika tyreopatií

MUDr. Otmar Stránský | prof. MUDr. Miroslav Souček, CSc. II. interní klinika FN u sv. Anny v Brně

1 **Greenspan, F. S. – Baxter, J. D.**: *Základní a klinická endokrinologie*. H&H, 2003.
2 **Kreze, A., et al.**: *Všeobecná a klinická endokrinológia*. Bratislava, Academic Electronic Press, 2004.
3 **Partsch, C.-J. – Mönig, H. – Sippel, W. G.**: *Endokrinologická funkční diagnostika*. Praha, Galen, 2008.
4 **Bruneton, J.-N.**: *Ultrasonography of the neck*. Berlin, Heidelberg, Springer-Verlag, 1987.

Léčba neuropatické bolesti

MUDr. Jaroslav Krch Ambulance léčby chronické bolesti, ARO, Krajská nemocnice Liberec

1 **Ambler, Z. – Bednařík, J. – Keller, O.**: Doporučený postup pro léčbu neuropatické bolesti, 2000. Dostupné z: https://www.neuromuskularni-sekce.cz/index.php?pg=odborne-materialy--doporuceny-postup-pro-lecbu-neuropaticke-bolesti, vyhledáno 9. 9. 2020.
2 **Kozák, J. – Černý, R. – Bojar, M.**: Neuropatická bolest – přehled současných diagnostických možností a farmakoterapie. *Farmakoterapie*, 2002, 6, s. 397–408.
3 **Vondráčková, D.**: Farmakoterapie neuropatické bolesti. *Klinická farmakologie*, 2009, 23, s. 181–186.
4 **Bednařík, J. – Ambler, Z.**: Novinky ve farmakoterapii neuropatické bolesti a současná doporučení. *Cesk Slov Neurol N*, 2010, 73/106, s. 738–740.
5 **Hakl, M. – Leštianský, B.**: Aktuální trendy v léčbě bolesti. *Medicína pro praxi*, 2011, 8, s. 532–536.
6 **Bednařík, J. – Ambler, Z. – Opavský, J., et al.**: Klinický standard pro farmakoterapii neuropatické bolesti. *Cesk Slov Neurol N*, 2012, 75, s. 93–101.
7 **Černý, R.**: Novinky v léčbě neuropatické bolesti. *Interní medicína*, 2012, 14, s. 30–32.
8 **Hakl, M.**: Léčba neuropatické bolesti. *Neurologie pro praxi*, 2016, 17, s. 113–116.
9 **Attal N. – Cruccu, G. – Baron, R., et al.**: EFNS guidelines on the pharmacological treatment of Neuropathc pain: 2010 revision. *Eur J Neurol*, 2010, 17, s. 1113–1188.

Flebazol 500 mg a Flebazol 1 000 mg – lékový profil

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1 European Pharmacopoeia. Diosmin. Dostupné z: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjFiebUjK_jAhVJSsAKHQctCK4QFjAAegQIARAC&url=http%3A%2F%2Fcdn.zhitiren.com%2Fuploads%2F1513840228%2FDiosmin_test_EP8.3.docx&usg=AOvVaw2HacGDz5zRMfZPZv5NicHm, vyhledáno 21. 9. 2020.
2 **Woodman, O. L. – Chan, E. C.**: Vascular and anti-oxidant actions of flavonols and flavones. *Clin Exp Pharmacol Physiol*, 2004, 31, s. 786–790.
3 **Damon, M. – Flandre, O. – Michel, F., et al.**: Effect of chronic treatment with a purified flavonoid fraction on inflammatory granuloma in the rat. Study of prostaglandin E2 and F2 alpha and thromboxane B2 release and histological changes. *Arzneimittelforschung*, 1987, 37, s. 1149–1153.
4 **Tsouderos, Y.**: Are the phlebotonic properties shown in clinical pharmacology predictive of a therapeutic benefit in chronic venous insufficiency? Our experience with Daflon 500 mg. *Int Angiol*, 1989, 8, s. 53–59.
5 **Amiel, M. – Barbe, R.**: Study of the pharmacodynamic activity of daflon 500 mg. *Ann Cardiol Angeiol*, 1998, 47, s. 185–188.
6 **Ramelet, A. A.**: Pharmacologic aspects of a phlebotropic drug in CVI-associated edema. *Angiology*, 2000, 51, s. 19–23.
7 **Casley-Smith, J. R. – Casley-Smith, J. R.**: The effects of diosmin (a benzo-pyrone) upon some high-protein oedemas: lung contusion, and burn and lymphoedema of rat legs. *Agents Actions*, 1985, 17, s. 14–20.
8 **Crespo, M. E. – Galvez, J. – Cruz, T., et al.**: Anti-inflammatory activity of diosmin and hesperidin in rat colitis induced by TNBS. *Planta Med*, 1999, 65, s. 651–653.
9 **Shoab, S. S. – Porter, J. – Scurr, J. H., et al.**: Endothelial activation response to oral micronised flavonoid therapy in patients with chronic venous disease-a prospective study. *Eur J Vasc Endovasc Surg*, 1999, 17, s. 313–318.
10 **Struckmann, J. R. – Nicolaides, A. N.**: Flavonoids. A review of the pharmacology and therapeutic efficacy of Daflon 500 mg in patients with chronic venous insufficiency and related disorders. *Angiology*, 1994, 45, s. 419-428.
11 **Coleridge-Smith, P. – Lok, C. – Ramelet, A. A.**: Venous leg ulcer: a meta-analysis of adjunctive therapy with micronized purified flavonoid fraction. *Eur J Vasc Endovasc Surg*, 2005, 30, s. 198–208.
12 **Krevel, B. – Barbic-Zagar, B. – Uranic, N.**: Účinnost a bezpečnost jedné dávky přípravku Flebaven (diosmin) 1000 mg denně u pacientů s chronickým žilním onemocněním. *Med Razgl*, 2020, 59 s. 107–118.

Diagnostika a možnosti léčby mnohočetného myelomu

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1 **Riccardi, A. – Gobbi, P. G. – Ucci, G., et al.**: Changing clinical presentation of multiple myeloma. *Eur J Cancer*, 1991, 27, s. 1401–1405.
2 **Ringe, J. D. – Mertelsmann, R.**: False diagnosis of „osteoporosis" in diffuse multiple myeloma (author's transl). *Dtsch Med Wochenschr*, 1977, 102, s. 928–931.
3 **Varga, G. – Mikala, G. – Andrikovics, H., et al.**: How long does a myeloma patient urrently wait for the diagnosis in Hungary? *Orv Hetil*, 2014, 155, s. 1538–1543.
4 **Howell, D. A. – Smith, A. G. – Jack, A., et al.**: Time-to-diagnosis and symptoms of myeloma, lymphomas and leukaemias: a report from the Haematological Malignancy Research Network. *BMC Hematology*, 2013, 13, s. 9.
5 **Straub, J. – Adam, Z. – Gregora, E. – Hájek, R. – Kessler, P. – Maisnar, V. – Ščudla, V. – Schützová, M. – Špička, I.**: Mnohočetný myelom – projekt časné diagnostiky „CRAB". *Medical Tribune*, 2007, 3, s. 4–5.
6 **Straub, J., et al.**: Projekt CRAB aneb časnou diagnostikou k lepší kvalitě života. *Praktický lékař*, 2008, 88, s. 59–61.
7 **Straub, J. – Adam, Z. – Gregora, E. – Hájek, R. – Kessler, P. – Maisnar, V. – Ščudla, V. – Schützová, M. – Špička, I.**: Mnohočetný myelom – časná diagnostika. *Medicína pro praxi*, 2009, 4, s. 197–199.
8 **Adam, Z. – Straub, J. – Ščudla, V.**: Doporučení České myelomové skupiny (CMG) pro zajištění časné diagnostiky mnohočetného myelomu v podmínkách ambulantní klinické praxe. *Časopis lékařů českých*, 2007, 146, s. 671–672.
9 **Hajek, R., et al.**: Diagnostika a léčba mnohočetného myelomu. *Transfuziologie a hematologie dnes*, 2018, suppl. 1, s. 1–157.