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MUDr. Jana Hurňáková Revmatologický ústav, Praha  
MUDr. Radka Janková Oddělení revmatologie dětí a dospělých, FN Motol, Praha  
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III. interní klinika – nefrologická, revmatologická a endokrinologická FN a LF UP, Olomouc
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# Idiopatické střevní záněty při spondyloartritidách a možnosti léčby

prof. MUDr. Karel Pavelka, DrSc. Revmatologický ústav, Praha

- 1 Brophy, S. – Calin, A.: Ankylosing spondylitis: interaction between genes, joints, age at onset, and disease expression. *J Rheumatol*, 2001, 28, s. 2283–2288.
- 2 Stolwijk, C. – van Tubergen, A. – Casillo-Ortiz, J. D., et al.: Prevalence of extra-articular manifestations in patients with ankylosing spondylitis: a systematic review and meta analysis. *Ann Rheum Dis*, 2015, 74, s. 65–73.
- 3 Essers, I. – Ramiro, S. – Stolwijk, C., et al.: Characteristics associated with presence and development of extra-articular manifestations in ankylosing spondylitis: 12-year results from OASIS. *Rheumatology*, 2015, 54, s. 633–640.
- 4 Klinkberg, E. – Strid, H. – Ståhl, A., et al.: A longitudinal study of fecal calprotectin and the development of inflammatory bowel disease in ankylosing spondylitis. *Arthritis Res Ther*, 2017, 19, s. 21, DOI: 10.1186/s13075-017-1223-2.
- 5 Rudwaleit, M.: Ankylosing spondylitis and bowel disease. *Best Pract Res Clin Rheum*, 2006, 20, s. 451–471.
- 6 Thojdleifson, B. – Geirson, A. J. – Bjornsson, S., et al.: A common genetic background for IBD and AS: a genealogic study in Iceland. *Arthritis Rheum*, 2007, 56, s. 2633–2639.
- 7 Danoy, P. – Pryce, K. – Hadler, J., et al.: Association of variants at 1q32 a STAT3 with ankylosing spondylitis suggests genetic overlap with Crohn's disease. *Plos Genet*, 2010, 6, s. e1001195.
- 8 Alamin, R. – Cocco, J. M. – Citara, G., et al.: Differential features between primary AS and spondylitis associated with psoriasis and inflammatory bowel disease. *J Rheum*, 2011, 38, s. 1656–1660.
- 9 Van der Heide, D. – Ramiro, S. – Landewe, R., et al.: 2016 EULAR Recommendations for management of axial spondyloarthritis. *Ann Rheum Dis*, publikováno online, 2017, doi:10.1136/annrheumdis-2016-210770.
- 10 Sandborn, W. – Stenson, W. – Brynskov, J., et al.: Safety of celecoxib in patients with ulcerative colitis in remission: a randomized, placebo controlled pilot study. *Clin Gastroenterol Hepatol*, 2006, 4, s. 829–838.
- 11 Ward, M. M. – Dsoedhar, A. – Akl, E. A., et al.: ACR/Spondyloarthritis research and treatment network 2015 recommendations for the treatment of ankylosing spondylitis and non-radiographic axial spondyloarthritis. *Arthritis Rheum*, 2016, 68, s. 282–298.
- 12 Baeten, D. – Sieper, J. – Braun, J., et al.: Secukinumab, an interleukin 17 A inhibitor in ankylosing spondylitis. *N Engl J Med*, 2015, 373, s. 2534–2548.
- 13 Sieper, J. – van der Heijde, D. – Dougados, M., et al.: Efficacy and safety of adalimumab in patients with non-radiographic axial spondyloarthritis: results of a randomised, placebo controlled trial (Ability-1). *Ann Rheum Dis*, 2013, 72, s. 815–822.
- 14 van der Horst-Bruinsma, I. E. – Nurmohamed, M. T.: Management and evaluation of extra-articular manifestations in spondyloarthritis. *Ther Adv Musculoskeletal Dis*, 2012, 4, s. 413–422.
- 15 Boonen, A. – van der Linden, S. M.: The burden of ankylosing spondylitis. *J Rheumatol Suppl*, 2006, 78, s. 4–11.
- 16 Baeten, D. – De Keyser, F. – Mielants, H., et al.: Ankylosing spondylitis and bowel disease. *Best Pract Res Clin Rheum*, 2002, 16, s. 537–549.

## Léčebná tělesná výchova jako součást komplexní léčby spondyloartritid

MUDr. Markéta Hušáková, Ph.D. Revmatologický ústav, Praha

- 1 Baillet, A. – Gossec, L. – Carmona, L., et al.: Points to consider for reporting, screening and preventing selected comorbidities in chronic inflammatory rheumatic diseases in daily practice: a EULAR initiative. *Ann Rheum Dis*, 2016, 75, s. 965–973.
- 2 Molto, A. – Atcheto, A. – van der Heide, D., et al.: Prevalence of comorbidities and evaluation of their screening in spondyloarthritis: results of the international cross – sectional ASAS. COMOSPA study. *Ann Rheum Dis*, 2016, 75, s. 1016–1023.
- 3 Pedersen, B. K. – Saltin, B.: Exercise as medicine – evidence for prescribing exercise as therapy in 26 different chronic diseases. *Scan J Med Sports*, 2015, S25, s. 1–72.
- 4 van der Heide, D. – Ramiro, S. – Landewé, R., et al.: 2016 update of the ASAS-EULAR management recommendations for axial spondyloarthritis. *Ann Rheum Dis*, 13, 1. 2017, Epub před tiskem, doi:10.1136/annrheumdis-2016-210770.
- 5 Coates, L. C. – Kavanaugh, A. – Mease, P. J., et al.: Group for Research and Assessment of Psoriasis and Psoriatic Arthritis 2015 Treatment Recommendations for Psoriatic Arthritis. *Arthritis Rheumatol*, 2016, 68, s. 1060–1071.
- 6 Levitova, A. – Hulejova, H. – Spiritovic, M., et al.: Clinical improvement and reduction in serum calprotectin levels after an intensive exercise programme for patients with ankylosing spondylitis and non-radiographic axial spondyloarthritis. *Arthritis Res Ther*, 2016, 18, s. 275.
- 7 Millner, J. R. – Barron, J. S. – Beinke, K. M., et al.: Exercise for ankylosing spondylitis: An evidence-based consensus statement. *Semin Arthritis Rheum*, 2016, 45, s. 411–427.
- 8 Kelman, A. – Lane, N. E.: The management of secondary osteoporosis. *Best Pract Res Clin Rheumatol*, 2005, 19, s. 1021–1037.
- 9 Ghazlani, I. – Ghazi, M. – Noujai, A., et al.: Prevalence and risk factors of osteoporosis and vertebral fractures in patients with ankylosing spondylitis. *Bone*, 2009, 44, s. 772–776.
- 10 Masiero, S. B. L. – Pigatto, M. – Lo Nigro, A., et al.: Rehabilitation treatment in patients with ankylosing spondylitis stabilized with tumour necrosis factor inhibitor therapy: a randomized controlled trial. *J Rheumatol*, 2011, 38, s. 1325–1342.
- 11 Lin, Z. M. – Wei, Y. L. – Li, L., et al.: Efficacy of exercise therapy combined with etanercept in patients with ankylosing spondylitis. *Int J Rheum Dis*, 2010, 13, s. 155.
- 12 Ramiro, S. – Landewe, R. – van Tubergen, A., et al.: Lifestyle factors may modify the effect of disease activity on radiographic progression in patients with ankylosing spondylitis: a longitudinal analysis. *RMD Open*, 2015, 1, s. e000153.
- 13 Falkenbach, A. – Neger, J. – Tripathi, R., et al.: Recreational exercises and mobility in young patients with ankylosing spondylitis (AS). *Sports Med Train Rehabil*, 1999, 9, s. 101–106.
- 14 Dagfinrud, H. – Hagen, K. B. – Kvien, T. K.: Physiotherapy interventions for ankylosing spondylitis. *Cochrane Database of Systemic Reviews*. 2008, 1, CD002822, DOI: 10.1002/14651858.CD002822.pub3.
- 15 Lubrano, E. – Spadaro, A. – Parsons, W. J., et al.: Rehabilitation in psoriatic arthritis. *J Rheumatol*, 2009, suppl. 83, s. 81–82.
- 16 Chimenti, M. S. – Triggiani, P. – Conigliaro, P., et al.: Self-reported adherence to home-based exercise program among patients affected by psoriatic arthritis with minimal disease activity. *Drug Dev Res*, 2014, 75, s. S57–59.

## Jak dál po selhání prvního TNF inhibitoru v léčbě revmatických onemocnění

MUDr. Leona Procházková, Ph.D. Revmatologie, II. interní klinika FN u sv. Anny a LF MU, Brno

- 1 Souto, A. – Maneiro, J. R. – Gómez-Reino, J. J.: Rate of discontinuation and drug survival of biologic therapies in rheumatoid arthritis: a systematic review and meta-analysis of drug registries and health care databases. *Rheumatology (Oxford)*, 2016, 55, s. 523–534.
- 2 Glintborg, B. – Østergaard, M. – Krogh, N. S., et al.: Clinical response, drug survival and predictors thereof in 432 ankylosing spondylitis patients after switching tumour necrosis factor α inhibitor therapy: results from the Danish nationwide DANBIO registry. *Ann Rheum Dis*, 2013, 72, s. 1149–1155.
- 3 Glintborg, B. – Østergaard, M. – Dreyer, I., et al.: Treatment response, drug survival, and predictors thereof in 764 patients with psoriatic arthritis treated with anti-tumour necrosis factor α therapy: results from the nationwide Danish DANBIO registry. *Arthritis Rheum*, 2011, 63, s. 382–390.
- 4 Smolen, J. S. – Landewé, R. – Bijlsma, J., et al.: EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update. *Ann Rheum Dis*, 2017, 76, s. 960–977.
- 5 Šenolt, L.: Nová doporučení pro léčbu revmatoidní artritidy. *Farmakoterapie*, 2017, 13, s. 496–500.
- 6 Fleischmann, R. M. – Goldman, J. A. – Leirisalo-Repo, M., et al.: Treatment with infliximab improves clinical response and physical function in patients with moderate or severe rheumatoid arthritis actively switch from etanercept or adalimumab therapy. *Arthritis Rheum*, 2010, 62, suppl. s. S178.
- 7 Chatzidionysiou, K. – van Vollenhoven, R.: TNF switch after failure of one or more TNF inhibitors: results of an observational study. *Arthritis Rheum*, 2010, 62, suppl. s. S177.
- 8 Burmester, G. R. – Kary, S. – Unnebrink, K., et al.: Treatment of rheumatoid arthritis with adalimumab is effective for patients with and without history of other anti-TNF therapies. *Rheumatology*, 2010, 49, suppl. 1, s. 189–111.
- 9 Feuchtenberger, M. – Babinsky, K. – George, J., et al.: Effectiveness of adalimumab for patients with rheumatoid arthritis previously treated with other biologics: subanalysis from a German non-interventional study of adalimumab. *Ann Rheum Dis*, 2009, 68, suppl. 3, s. 427.
- 10 Virkki, L. M. – Valleala, H. – Takakubo, Y., et al.: Outcomes of switching anti-TNF drugs in rheumatoid arthritis – a study based on observational data from the Finnish Register of Biological Treatment (ROB-FIN). *Clin Rheumatol*, 2011, 30, s. 1447–1454.
- 11 Chatzidionysiou, K. – Askling, J. – Ericsson, J., et al.: Effectiveness of TNF inhibitor switch in RA: results from the national Swedish register. *Ann Rheum Dis*, 2014, 74, s. 890–896.
- 12 Smolen, J. S. – Kay, J. – Matteson, E. L., et al.: Insights into the efficacy of golimumab plus methotrexate in patients with active rheumatoid arthritis who discontinued prior anti-tumour necrosis factor therapy: post-hoc analyses from the GO-AFTER study. *Ann Rheum Dis*, 2014, 73, s. 1811–1818.
- 13 Emery, P. – Keystone, E. – Tony, H. P., et al.: IL-6 receptor inhibition with tocilizumab improves treatment outcomes in patients with rheumatoid arthritis refractory to anti-tumour necrosis factor biologics: results from a 24-week multicentre randomised placebo-controlled trial. *Ann Rheum Dis*, 2008, 67, s. 1516–1523.
- 14 Gomez-Reino, J. J. – Maneiro, J. R. – Ruiz, J., et al.: Comparative effectiveness of switching to alternative tumour necrosis factor (TNF) antagonists versus switching to rituximab in patients with rheumatoid arthritis who failed previous TNF antagonists: the MIRAR Study.

- Ann Rheum Dis*, 2012, 71, s. 1861–1864.
- 15 Kim, H. L. – Lee, M. Y. – Park, S. Y., et al.: Comparative effectiveness of cycling of tumor necrosis factor-α (TNF-α) inhibitors versus switching to non-TNF biologics in rheumatoid arthritis patients with inadequate response to TNF-α inhibitor using a Bayesian approach. *Arch Pharm Res*, 2014, 37, s. 662–670.
  - 16 Soliman, M. M. – Hyrich, K. L. – Lunt, M., et al.: Rituximab or a second anti-tumor necrosis factor therapy for rheumatoid arthritis patients who have failed their first anti-tumor necrosis factor therapy? Comparative analysis from the British Society for Rheumatology Biologics Register. *Arthritis Care Res (Hoboken)*, 2012, 64, s. 1108–1115.
  - 17 Chatzidionysiou, K. – van Vollenhoven, R. F.: Rituximab versus anti-TNF in patients who previously failed one TNF inhibitor in an observational cohort. *Scand J Rheumatol*, 2013, 42, s. 190–195.
  - 18 Emery, P. – Gottenberg, J. E. – Rubbert-Roth, A., et al.: Rituximab versus an alternative TNF inhibitor in patients with rheumatoid arthritis who failed to respond to a single previous TNF inhibitor: SWITCH-RA, a global, observational, comparative effectiveness study. *Ann Rheum Dis*, 2015, 74, s. 979–984.
  - 19 Favalli, E. G. – Biggiogero, M. – Marchesoni, A., et al.: Survival on treatment with second-line biologic therapy: a cohort study comparing cycling and swap strategies. *Rheumatology (Oxford)*, 2014, 53, s. 1664–1668.
  - 20 Gottenberg, J. – Brocq, O. – Perdriger, A., et al.: Non-TNF-targeted biologic vs a second anti-TNF drug to treat rheumatoid arthritis in patients with insufficient response to a first anti-TNF drug: a randomized clinical trial. *JAMA*, 2016, 316, s. 1172–1180.
  - 21 Smolen, J. S. – Burmester, G.-R. – Combe, B., et al.: Head-to-head comparison of certolizumab pegol versus adalimumab in rheumatoid arthritis: 2-year efficacy and safety results from the randomised EXXELerate study. *Lancet Lond Engl*, 2016, 388, s. 2763–2774.
  - 22 Burmester, G. R. – Blanco, R. – Charles-Schoeman, C., et al.: Tofacitinib (CP-690,550) in combination with methotrexate in patients with active rheumatoid arthritis with an inadequate response to tumour necrosis factor inhibitors: a randomised phase 3 trial. *Lancet*, 2013, 381, s. 451–460.
  - 23 Wollenhaupt, J. – Silverfield, J. – Lee, E. B., et al.: Safety and efficacy of tofacitinib, an oral janus kinase inhibitor, for the treatment of rheumatoid arthritis in open-label, longterm extension studies. *J Rheumatol*, 2014, 41, s. 837–852.
  - 24 Braun, J. – van den Berg, R. – Baraliakos, X., et al.: 2010 update of the ASAS/EULAR recommendations for the management of ankylosing spondylitis. *Ann Rheum Dis*, 2011, 70, s. 896–904.
  - 25 van der Heijde, D. – Ramiro, S. – Landewé, R., et al.: 2016 update of the ASAS-EULAR management recommendations for axial spondyloarthritis. *Ann Rheum Dis*, 2017, 76, s. 978–991.
  - 26 Lie, E. – van der Heijde, D. – Uhlig, T., et al.: Effectiveness of switching between TNF inhibitors in ankylosing spondylitis: data from the NOR-DMARD register. *Ann Rheum Dis*, 2011, 70, s. 157–163.
  - 27 Glintborg, B. – Østergaard, M. – Krogh, N. S., et al.: Clinical response, drug survival and predictors thereof in 432 ankylosing spondylitis patients after switching tumour necrosis factor α inhibitor therapy: results from the Danish nationwide DANBIO registry. *Ann Rheum Dis*, 2013, 72, s. 1149–1155.
  - 28 Rudwaleit, M. – Van den Bosch, F. – Kron, M., et al.: Effectiveness and safety of adalimumab in patients with ankylosing spondylitis or psoriatic arthritis and history of anti-tumor necrosis factor therapy. *Arthritis Res Ther*, 2010, 12, s. R117.
  - 29 Ciurea, A. – Exer, P. – Weber, U., et al.: Does the reason for discontinuation of a first TNF inhibitor influence the effectiveness of a second TNF inhibitor in axial spondyloarthritis? Results from the Swiss Clinical Quality Management Cohort. *Arthritis Res Ther*, 2016, 18, s. 71.
  - 30 Baeten, D. – Sieper, J. – Braun, J., et al.: Secukinumab, an interleukin-17A inhibitor, in ankylosing spondylitis. *N Engl J Med*, 2015, 373, s. 2534–2548.
  - 31 Sieper, J. – Deodhar, A. – Marzo-Ortega, H., et al.: Secukinumab efficacy in anti-TNF-naïve and anti-TNF-experienced subjects with active ankylosing spondylitis: results from the MEASURE 2 Study. *Ann Rheum Dis*, 2017, 76, s. 571–592.
  - 32 Gossec, L. – Smolen, J. S. – Ramiro, S., et al.: European League Against Rheumatism (EULAR) recommendations for the management of psoriatic arthritis with pharmacological therapies: 2015 update. *Ann Rheum Dis*, 2016, 75, s. 499–510.
  - 33 Štolfa, J., et al.: Doprůčené lečebné postupy České revmatologické společnosti pro psoriatickou artritidu. *Čes Revmatol*, 2016, 4, s. 142–152.
  - 34 Douagados, M. – Baeten, D.: Spondyloarthritis. *Lancet*, 2011, 377, s. 2127–2137.
  - 35 Glintborg, B. – Østergaard, M. – Krogh, N. S., et al.: Clinical response, drug survival, and predictors thereof among 548 patients with psoriatic arthritis who switched tumor necrosis factor α inhibitor therapy: results from the Danish Nationwide DANBIO Registry. *Arthritis Rheum*, 2013, 65, s. 1213–1223.
  - 36 Fagerli, K. M. – Lie, E. – van der Heijde, D., et al.: Switching between TNF inhibitors in psoriatic arthritis: data from the NOR-DMARD study. *Ann Rheum Dis*, 2013, 72, s. 1840–1844.
  - 37 Kavanaugh, A. – McInnes, I. B. – Mease, P. J., et al.: Efficacy of subcutaneous secukinumab in patients with active psoriatic arthritis stratified by prior tumor necrosis factor inhibitor use: results from the randomized placebo-controlled FUTURE 2 study. *J Rheumatol*, 2016, 43, s. 1713–1717.
  - 38 Ritchlin, C. – Rahman, P. – Kavanaugh, A., et al.: Efficacy and safety of the anti-IL-12/23 p40 monoclonal antibody, ustekinumab, in patients with active psoriatic arthritis despite conventional non-biological and biological anti-tumour necrosis factor therapy: 6-month and 1-year results of the phase 3, multicentre, double-blind, placebo-controlled, randomised PSUMMIT 2 trial. *Ann Rheum Dis*, 2014, 73, s. 990–999.
  - 39 Edwards, C. J. – Blanco, F. J. – Crowley, J., et al.: Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with psoriatic arthritis and current skin involvement: a phase III, randomised, controlled trial (PALACE 3). *Ann Rheum Dis*, 2016, 75, s. 1065.
  - 40 Kavanaugh, A. – Mease, P. J. – Gomez-Reino, J. J., et al.: Long-term (52-week) results of a phase III randomized, controlled trial of apremilast in patients with psoriatic arthritis. *J Rheumatol*, 2015, 42, s. 479.
  - 41 Harrison, M. J. – Dixon, W. G. – Watson, K. D., et al.: Rates of new-onset psoriasis in patients with rheumatoid arthritis receiving anti-tumour necrosis factor a therapy: results from the British Society for Rheumatology Biologics Register. *Ann Rheum Dis*, 68, 2009, s. 209–215.
  - 42 Gottlieb, A. – Sullivan, J. – van Doorn, M., et al.: Secukinumab shows significant efficacy in palmoplantar psoriasis: Results from GESTURE, a randomized controlled trial. *J Am Acad Dermatol*, 2017, 76, s. 70–80.
  - 43 McInnes, I. B. – Mease, P. J. – Kirkham, B., et al.: Secukinumab, a human anti-interleukin-17A monoclonal antibody, in patients with psoriatic arthritis (FUTURE 2): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet*, 2015, 386, s. 1137–1146.
  - 44 Rose, S. – Tolosa, S. – Bautista-Molano, V., et al.: Comprehensive treatment of dactylitis in psoriatic arthritis. *J Rheum*, 2014, 41, s. 2295–2300.
  - 45 Orbai, A. M. – Weitz, J. – Siegel, E. L., et al.: Systematic review of treatment effectiveness and outcome measures for enthesitis in psoriatic arthritis. *J Rheum*, 2014, 41, s. 2290–2294.

## Biologická léčba dospělých pacientů s juvenilní idiopatickou artididou

MUDr. Kateřina Jarošová Revmatologický ústav, Praha

- 1 Oliviera-Ramos, F., et al.: Juvenile idiopathic arthritis in adulthood: fulfillment of classification criteria for adult rheumatic diseases, long-term outcomes and predictors of inactive disease, functional status and damage. *RMD Open*, 2016, 2, s. e000304.
- 2 McErlane, F., et al.: Biologic treatment response among adults with juvenile idiopathic arthritis: results from the British Society for Rheumatology Biologics Register. *Rheumatology*, 2013, 52, s. 1905–1913.
- 3 Jarošová, K.: Treatment of adult juvenile idiopathic arthritis with TNF blockers and effect of switching to a second anti-TNF agent. Data from the Czech national registry. *Ann Rheum Dis*, 2013, 72, suppl. 3, s. 740.

## Hodnocení entezitid Achillovy šlachy u radiografické a non-radiografické axiální spondyloartritidy

MUDr. Jindříška Gatterová | MUDr. Markéta Hušáková, Ph.D. Revmatologický ústav, Praha

- 7 Lories, R. J. – Derese, I. – Ceuppens, J. L., et al.: Bone morphogenetic proteins 2 and 6, expressed in arthritic synovium, are regulated by proinflammatory cytokines and differentially modulate fibroblast-like synoviocyte apoptosis. *Arthritis Rheum*, 2003, 48, s. 2807–2818.
- 8 Sherlock, J. P. – Joyce-Haikh, B. – Turner, S. P., et al.: IL-23 induces spondyloarthropathy by acting on RORγt+ CD3+CD4+CD8- sentinel resident T cells. *Nat Med*, 2012, 18, s. 1069–1076.
- 9 Benjamin, M. – Rufai, A. – Ralphs, J. R.: The mechanism of formation of bony spurs (enthesophytes) in the Achilles tendon. *Arthritis Rheum*, 2000, 43, s. 576–583.
- 10 Laloux, L. – Voisin, M. C. – Allain, J., et al.: Comparative histological study of enthesitis in spondyloarthropathies [abstract]. *Arthritis Rheum*, 1999, 42, s. S402.
- 11 De Winter, J. J. – van Mens, L. J. – van der Heijde, D., et al.: Prevalence of peripheral and extra-articular disease in ankylosing spondylitis versus non-radiographic axial spondyloarthritis: a meta-analysis. *Arthritis Res Ther*, 2016, 18, s. 195.
- 12 Ciurea, A. – Cherer, A. – Exer, P., et al.: Tumor necrosis factor α inhibition in radiographic and nonradiographic axial spondyloarthritis: results from a large observational cohort. *Arthritis Rheum*, 2013, 65, s. 3096–3106.
- 13 Lambert, R. G. – Dhillon, S. S. – Jhangri, G. S., et al.: High prevalence of symptomatic enthesopathy of the shoulder in ankylosing spondylitis: deltoid origin involvement constitutes a hallmark of the disease. *Arthritis Rheum*, 2004, 51, s. 681–690.
- 14 Kamel, M. – Eid, H. – Mansour, R.: Ultrasound detection of knee patellar enthesitis: a comparison with magnetic resonance imaging. *Ann Rheum Dis*, 2004, 63, s. 213–214.
- 15 Resnick, D. – Feingold, M. L. – Curd, J., et al.: Calcaneal abnormalities in articular disorders. Rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis, and Reiter syndrome. *Radiology*, 1977, 125, s. 355–366.
- 16 McGonagle, D. – Marzo-Ortega, H. – O'Connor, P., et al.: The role of biomechanical factors and HLA-B27 in magnetic resonance imaging-determined bone changes in plantar fascia enthesopathy. *Arthritis Rheum*, 2002, 46, s. 489–493.
- 17 Heuft-Dorenbosch, L. – Spoorenberg, A. – van Tubergen, A., et al.: Assessment of enthesitis in ankylosing spondylitis. *Ann Rheum Dis*,

- 2003, 62, s. 127–132.
- 18 Van der Heijde, D. – Braun, J. – Deodhar, A., et al.: Comparison of three enthesitis indices in a multicentre, randomized, placebo-controlled trial of golimumab in ankylosing spondylitis (GO-RAISE). *Rheumatology*, 2013, 52, s. 321–325.
- 19 Mease, P. J. – Van den Bosch, F. – Sieper, J., et al.: Performance of 3 enthesitis indices in patients with peripheral spondyloarthritis during treatment with adalimumab. *J Rheumatol*, 2017, Epub před tiskem.
- 20 Eshed, I. – Bollow, M. – McGonagle, D. G., et al.: MRI of enthesitis of appendicular skeleton in spondyloarthritis. *Ann Rheum Dis*, 2007, 66, s. 1553–1559.
- 21 Chen, J. – Liu, C.: Is sulfasalazine effective in ankylosing spondylitis: A systematic review of randomized controlled trials. *J Rheumatol*, 2006, 33, s. 722–731.
- 22 Genc, H. – Duyur Cakir, B. – Nacir, B., et al.: The effects of sulfasalazine treatment on enthesitis abnormalities of inflammatory rheumatic diseases. *Clin Rheumatol*, 2007, 26, s. 1104.
- 23 Song, I. H. – Hermann, K. G. – Haibel, H., et al.: Effects of etanercept versus sulfasalazine in early axial spondyloarthritis on active inflammatory lesions as detected by whole-body MRI (ESTHER): a 48-week randomised controlled trial. *Ann Rheum Dis*, 2011, 7, s. 590–596.
- 24 Sieper, J. – van der Heijde, D. – Dougados, M., et al.: A randomized, double-blind, placebo-controlled, sixteen-week study of subcutaneous golimumab in patients with active nonradiographic axial spondyloarthritis. *Arthritis Rheumatol*, 2015, 67, s. 2702–2712.
- 25 Wang, C. H. – Feng, Y. – Ren, Z., et al.: Performance of ultrasound to monitor Achilles enthesitis in patients with ankylosing spondylitis during TNF-a antagonist therapy. *Clin rheumaol*, 2015, 34, s. 1073–1078.
- 26 Braun, J. – Baraliakos, X. – Deodhar, A., et al.: Effect of secukinumab on clinical and radiographic outcomes in ankylosing spondylitis: 2-year results from the randomised phase III MEASURE 1 study. *Ann Rheum Dis*, 2016, Epub před tiskem.

## Biosimilars v revmatologických indikacích

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- 1 Braun, J. – Kudrin, A.: Switching to biosimilar infliximab (CT-P13): Evidence of clinical safety, effectiveness and impact on public health. *Biologics*, 2016, 44, s. 257–266.
- 2 Olech, E.: Biosimilars: Rationale and current regulatory landscape. *Semin Arthr Rheum*, 2016, 45, s. 51–510.
- 3 Dörner, T. – Strand, V. – Cornes, P., et al.: The changing landscape of biosimilars in rheumatology. *Ann Rheum Dis*, 2016, 75, s. 974–982.
- 4 Yoo, D. H. – Hrycay, P. – Miranda, P., et al.: A randomised, double-blind, parallel-group study to demonstrate equivalence in efficacy and safety of CT-P13 compared with innovator infliximab when co-administered with methotrexate in patients with active rheumatoid arthritis: the PLANETRA study. *Ann Rheum Dis*, 2013, 72, s. 1613–1620.
- 5 Yoo, D. H. – Prodanovic, N. – Jaworski, J., et al.: Efficacy and safety of CT-P13 (biosimilar infliximab) in patients with rheumatoid arthritis: comparison between switching from reference infliximab to CT-P13 and continuing CT-P13 in the PLANETRA extension study. *Ann Rheum Dis*, 2017, 76, s. 355–363.
- 6 Park, W. – Hrycay, P. – Jeka, S., et al.: A randomised, double-blind, multicentre, parallel group, prospective study comparing the pharmacokinetics, safety and efficacy of CT-P13 and innovator infliximab in patients with ankylosing spondylitis: the PLANETAS study. *Ann Rheum Dis*, 2013, 72, s. 1605–1612.
- 7 Park, W. – Yoo, D. H. – Miranda, P., et al.: Efficacy and safety of switching from reference infliximab to CT-P13 compared with maintenance of CT-P13 in ankylosing spondylitis: 102-week data from the PLANETAS extension study. *Ann Rheum Dis*, 2017, 76, s. 346–354.
- 8 Emery, P. – Vencovský, J. – Sylwestrzak, A., et al.: A phase III randomised, double-blind, parallel-group study comparing SB4 with etanercept reference product in patients with active rheumatoid arthritis despite methotrexate therapy. *Ann Rheum Dis*, 2017, 76, s. 51–57.
- 9 Choe, J. Y. – Prodanovic, N. – Niebrydowski, J., et al.: A randomised, double-blind, phase III study comparing SB2, an infliximab biosimilar, to the infliximab reference product Remicade in patients with moderate to severe rheumatoid arthritis despite methotrexate therapy. *Ann Rheum Dis*, 2017, 76, s. 58–64.
- 10 Bae, S. C. – Kim, J. – Choe, J. Y., et al.: HERA Study Investigators: A phase III, multicentre, randomised, double-blind, active-controlled, parallel-group trial comparing safety and efficacy of HD203, with innovator etanercept, in combination with methotrexate, in patients with rheumatoid arthritis: the HERA study. *Ann Rheum Dis*, 2017, 7, s. 65–71.
- 11 GaBI online: The European Crohn's and Colitis Organization (ECCO) zveřejnila výsledky konzenzuálního zasedání konaného dne 15. října 2016 ve Vídni v Rakousku, ve kterém podporuje přechod od referenčního k biosimilárnímu přípravku. Dostupné z: <http://www.gabionline.net/Biosimilars/General/European-IBD-specialists-support-switching-to-biosimilars>.
- 12 Glintborg, B. – Sørensen, I. J. – Jensen, D. V., et al.: Three months clinical outcomes from a nationwide non-medical switch from originator to biosimilar infliximab in patients with inflammatory arthritis. Results from the Danbio Registry. *Ann Rheum Dis*, 2016, 75, suppl. 2, s. 142.
- 13 Glintborg, B. – Sørensen, I. J. – Loft, A. J., et al.: A nationwide non-medical switch from originator infliximab to biosimilar CT-P13 in 802 patients with inflammatory arthritis: 1-year clinical outcomes from the DANBIO registry. *Ann Rheum Dis*, 2017, 0, s. 1–6.
- 14 Gol, G. L. – Olsen, I. C. – Jorgensen, J. J., et al.: Biosimilar infliximab (CT-P13) is not inferior to originator infliximab: results from a 52-week randomized switch trial in Norway. *Arthritis Rheum*, 2016, 68, suppl. 10, abstrakta 19L.
- 15 Dodd, S.: Current insights in the placebo and nocebo phenomena. *Clin Ther*, 28, 2, 2017, publikováno on-line.
- 16 Jacobs, I. – Petersel, D. – Isakov, L., et al.: Biosimilars for the treatment of chronic inflammatory diseases: a systematic review of published evidence. *BioDrugs*, 2016, 30, s. 525–570.
- 17 Komaki, Y. – Yamada, A. – Komaki, F., et al.: Efficacy, safety and pharmacokinetics of biosimilars of anti-tumor necrosis factor-α-agents in rheumatic diseases: A systemic review and meta-analysis. *J Autoimmunity*, 2017, 79, s. 4–16.

## Současný pohled na intraartikulární léčbu kyselinou hyaluronovou u gonartrózy

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- 1 Maheu, E. – Rannou, F. – Reginster, J. Y.: Efficacy and safety of hyaluronic acid in the management of osteoarthritis: Evidence from real-life setting trials and surveys. *Semin Arthritis Rheum*, 2016, 45, suppl. s. 28–33.
- 2 Altman, R. D. – Manjoo, A. – Fierlinger, A., et al.: The mechanism of action for hyaluronic acid treatment in the osteoarthritic knee: A systematic review. *BMC Musculoskelet Disord*, 2015, 16, s. 321.
- 3 Lo, G. H. – LaValley, M. – McAlindon, T., et al.: Intra-articular hyaluronic acid in treatment of knee osteoarthritis: A meta-analysis. *JAMA*, 2003, 290, s. 3115–3121.
- 4 Wang, C. T. – Lin, J. – Chang, C. J., et al.: Therapeutic effects of hyaluronic acid on osteoarthritis of the knee. A meta-analysis of randomized controlled trials. *J Bone Joint Surg Am*, 2004, 86, s. 538–545.
- 5 Arrich, J. – Piribauer, F. – Mad, P., et al.: Intra-articular hyaluronic acid for the treatment of osteoarthritis of the knee: Systematic review and meta-analysis. *CMAJ*, 2005, 172, s. 1039–1043.
- 6 Modawal, A. – Ferrer, M. – Choi, H. K., et al.: Hyaluronic acid injections relieve knee pain. *J Fam Pract*, 2005, 54, s. 758–767.
- 7 Bellamy, N. – Campbell, J. – Robinson, V., et al.: Viscosupplementation for the treatment of osteoarthritis of the knee. *Cochrane Database Syst Rev*, 2006, CD005321.
- 8 Medina, J. M. – Thomas, A. – Denegar, C. R.: Knee osteoarthritis: Should your patient opt for hyaluronic acid injection? *J Fam Pract*, 2006, 55, s. 669–675.
- 9 Reichenbach, S. – Blank, S. – Rutjes, A. W., et al.: Hyaluronic acid for osteoarthritis of the knee: A systematic review and meta-analysis. *Arthritis Rheum*, 2007, 57, s. 1410–1418.
- 10 Bannuru, R. R. – Natov, N. S. – Obadan, I. E., et al.: Therapeutic trajectory of hyaluronic acid versus corticosteroids in the treatment of knee osteoarthritis: A systematic review and meta-analysis. *Arthritis Rheum*, 2009, 61, s. 1704–1711.
- 11 Bannuru, R. R. – Natov, N. S. – Dasi, U. R., et al.: Therapeutic trajectory following intra-articular hyaluronic acid injection in knee osteoarthritis – meta-analysis. *Osteoarthritis Cartilage*, 2011, 19, s. 611–619.
- 12 Coleen, S. – van den Bekerom, M. P. – Mulier, M., et al.: Hyaluronic acid in the treatment of knee osteoarthritis: A systematic review and meta-analysis with emphasis on the efficacy of different products. *BioDrugs*, 2012, 26, s. 257–268.
- 13 Rutjes, A. W. – Jüni, P. – da Costa, B. R., et al.: Viscosupplementation for osteoarthritis of the knee: A systematic review and meta-analysis. *Ann Intern Med*, 2012, 157, s. 180–191.
- 14 Miller, L. E. – Block, J. E.: US-approved intra-articular hyaluronic acid injections are safe and effective in patients with knee osteoarthritis: Systematic review and meta-analysis of randomized, saline-controlled trials. *Clin Med Insights Arthritis Musculoskeletal Disord*, 2013, 6, s. 57–63.
- 15 Bannuru, R. R. – Vaysbrot, E. E. – Sullivan, M. C., et al.: Relative efficacy of hyaluronic acid in comparison with NSAIDs for knee osteoarthritis: A systematic review and meta-analysis. *Semin Arthritis Rheum*, 2014, 43, s. 593–599.
- 16 Bannuru, R. R. – Schmid, C. H. – Kent, D. M., et al.: Comparative effectiveness of pharmacologic interventions for knee osteoarthritis: A systematic review and network meta-analysis. *Ann Intern Med*, 2015, 162, s. 46–54.
- 17 Richette, P. – Chevalier, X. – Ea, H. K., et al.: Hyaluronan for knee osteoarthritis: An updated meta-analysis of trials with low risk of bias. *RMD Open*, 2015, 1, e000071, publikováno online 14. 5. 2015, doi: 10.1136/rmdopen-2015-000071.
- 18 Altman, R. – Lim, S. – Steen, R. G., et al.: Hyaluronic acid injections are associated with delay of total knee replacement surgery in patients with knee osteoarthritis: Evidence from a large U.S. health claims database. *PLoS One*, 2015, 10, e0145776.
- 19 Ong, K. L. – Anderson, A. F. – Niazi, F., et al.: Hyaluronic acid injections in Medicare knee osteoarthritis patients are associated with longer time to knee arthroplasty. *J Arthroplasty*, 2016, 31, s. 1667–1673.
- 20 Altman, R. – Fredericson, M. – Bhattacharyya, S. K., et al.: Association between hyaluronic acid injections and time-to-total knee replacement surgery. *J Knee Surg*, 2015, 29, s. 564–570.
- 21 Pagnano, M. – Westrich, G.: Successful nonoperative management of chronic osteoarthritis pain of the knee: Safety and efficacy of retreatment with intra-articular hyaluronans. *Osteoarthritis Cartilage*, 2005, 13, s. 751–761.
- 22 Leopold, S. S. – Warme, W. J. – Pettis, P. D., et al.: Increased frequency of acute local reaction to intra-articular hylan GF-20 (Synvisc) in patients receiving more than one course of treatment. *J Bone Joint Surg Am*, 2002, 84, s. 1619–1623.
- 23 Chen, A. L. – Desai, P. – Adler, E. M., et al.: Granulomatous inflammation after hylan GF-20 viscosupplementation of the knee: A report of six cases. *J Bone Joint Surg Am*, 2002, 84, s. 1142–1147.
- 24 Bellamy, N. – Campbell, J. – Robinson, V., et al.: Intraarticular corticosteroid for treatment of osteoarthritis of the knee. *Cochrane Database Syst Rev*, 2006, CD005328.
- 25 McAlindon, T. E. – Bannuru, R. R. – Sullivan, M. C., et al.: OARSI guidelines for the non-surgical management of knee osteoarthritis. *Osteoarthritis Cartilage*, 2014, 22, s. 363–388.
- 26 Hochberg, M. C. – Altman, R. D. – Toupin April, K., et al.: American College of Rheumatology 2012: Recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care Res (Hoboken)*, 2012, 64, s. 465–474.
- 27 Treatment of osteoarthritis of the knee. Evidence-based guideline, 2<sup>nd</sup> edition. Rosemont, IL: American Academy of Orthopaedic Surgeons; 2013. Dostupné z: [www.aaos.org/research/guidelines/TreatmentofOsteoarthritisoftheKneeGuideline.pdf](http://www.aaos.org/research/guidelines/TreatmentofOsteoarthritisoftheKneeGuideline.pdf), vyhledáno 16. 8. 2017.
- 28 National Institute for Health and Care Excellence. Osteoarthritis: Care and management in adults. NICE clinical guideline 177. London, United Kingdom: National Clinical Guideline Centre; 2014. Dostupné z: <http://www.nice.org.uk/guidance/cg177>, vyhledáno 16. 8. 2017.
- 29 Bruyère, O. – Cooper, C. – Pelletier, J. P., et al.: An algorithm

- recommendation for the management of knee osteoarthritis in Europe and internationally: A report from a task force of the European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ESCEO). *Semin Arthritis Rheum*, 2014, 44, s. 253–263.
- 30 Navarro-Sarabia, F. – Coronel, P. – Collantes, E., et al.: A 40-month multicentre, randomised placebo-controlled study to assess the efficacy and carry-over effect of repeated intra-articular injections of hyaluronic acid in knee osteoarthritis: the AMELIA project. *Ann Rheum Dis*, 2011, 70, s. 1957–1962.
- 31 Berenbaum, F. – Grifka, J. – Cazzaniga, S., et al.: A randomised, double-blind, controlled trial comparing two intra-articular hyaluronic acid preparations differing by their molecular weight in symptomatic knee osteoarthritis. *Ann Rheum Dis*, 2012, 71, s. 1454–1460.

## Účinnost a bezpečnost terapie adalimumabem v léčbě ankylozující spondylitidy – analýza dat sledování Českého národního registru ATTRa

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- 1 Rahman, P. – Choquette, D. – Bensen, W. G., et al.: Biologic Treatment Registry Across Canada (BioTRAC): a multicentre, prospective, observational study of patients treated with infliximab for ankylosing spondylitis. *BMJ Open*, 2016, 6, s. e009661.
- 2 Wallman, J. K. – Kapetanovic, M. C. – Petersson, I. F., et al.: Comparison of non-radiographic axial spondyloarthritis and ankylosing spondylitis patients—baseline characteristics, treatment adherence, and development of clinical variables during three years of anti-TNF therapy in clinical practice. *Arthritis Res Ther*, 2015, 17, s. 378.
- 3 Heinonen, A. V. – Aaltonen, K. J. – Joensuu, J. T., et al.: Effectiveness and drug survival of TNF inhibitors in the treatment of ankylosing spondylitis: a prospective cohort study. *J Rheumatol*, 2015, 42, s. 2339–2346.
- 4 Glintborg, B. – Ostergaard, M. – Krogh, N. S., et al.: Clinical response, drug survival and predictors thereof in 432 ankylosing spondylitis patients after switching tumour necrosis factor alpha inhibitor therapy: results from the Danish nationwide DANBIO registry. *Ann Rheum Dis*, 2013, 72, s. 1149–1155.
- 5 Konttinen, L. – Tuompo, R. – Uusitalo, T., et al.: Anti-TNF therapy in the treatment of ankylosing spondylitis: the Finnish experience. *Clin Rheumatol*, 2007, 26, s. 1693–1700.
- 6 Pavelka, K. – Forejtová, S. – Štolfa, J., et al.: Anti-TNF therapy of ankylosing spondylitis in clinical practice. Results from the Czech national registry ATTRa. *Clin Exp Rheumatol*, 2009, 27, s. 958–963.
- 7 Zavada, J. – Uher, M. – Sisol, K., et al.: A tailored approach to reduce dose of anti-TNF drugs may be equally effective, but substantially less costly than standard dosing in patients with ankylosing spondylitis over 1 year: a propensity score-matched cohort study. *Ann Rheum Dis*, 2016, 75, s. 96–102.
- 8 Poddubnyj, D.: Axial spondyloarthritis: is there a treatment of choice? *Ther Adv Musculoskelet Dis*, 2013, 5, s. 45–54.
- 9 Lambert, R. G. – Bakker, P. A. – van der Heijde, D., et al.: Defining active sacroiliitis on MRI for classification of axial spondyloarthritis: update by the ASAS MRI working group. *Ann Rheum Dis*, 2016, 75, s. 1958–1963.
- 10 van der Heijde, D. – Ramiro, S. – Landewe, R., et al.: 2016 update of the ASAS-EULAR management recommendations for axial spondyloarthritis. *Ann Rheum Dis*, 2017, 76, s. 978–991.
- 11 Ward, M. M. – Deodhar, A. – Akl, E. A., et al.: American College of Rheumatology/Spondylitis Association of America/Spondyloarthritis Research and Treatment Network 2015 Recommendations for the treatment of ankylosing spondylitis and nonradiographic axial spondyloarthritis. *Arthritis Rheumatol*, 2016, 68, s. 282–298.
- 12 van der Heijde, D. – Kivitz, A. – Schiff, M. H., et al.: Efficacy and safety of adalimumab in patients with ankylosing spondylitis: results of a multicenter, randomized, double-blind, placebo-controlled trial. *Arthritis Rheum*, 2006, 54, s. 2136–2146.
- 13 Sieper, J. – van der Heijde, D. – Dougados, M., et al.: Efficacy and safety of adalimumab in patients with non-radiographic axial spondyloarthritis: results of a randomised placebo-controlled trial (ABILITY-1). *Ann Rheum Dis*, 2013, 72, s. 815–822.
- 14 Mease, P. – Sieper, J. – Van den Bosch, F., et al.: Randomized controlled trial of adalimumab in patients with nonsporadic peripheral spondyloarthritis. *Arthritis Rheumatol*, 2015, 67, s. 914–923.
- 15 Lambert, R. G. – Salonen, D. – Rahman, P., et al.: Adalimumab significantly reduces both spinal and sacroiliac joint inflammation in patients with ankylosing spondylitis: a multicenter, randomized, double-blind, placebo-controlled study. *Arthritis Rheum*, 2007, 56, s. 4005–4014.
- 16 Baraliakos, X. – Haibel, H. – Listing, J., et al.: Continuous long-term anti-TNF therapy does not lead to an increase in the rate of new bone formation over 8 years in patients with ankylosing spondylitis. *Ann Rheum Dis*, 2014, 73, s. 710–715.
- 17 Maxwell, L. J. – Zochling, J. – Boonen, A., et al.: TNF-alpha inhibitors for ankylosing spondylitis. *Cochrane Database Syst Rev*, 2015, CD005468.
- 18 Molto, A. – Paternotte, S. – Claudepiere, P., et al.: Effectiveness of tumor necrosis factor alpha blockers in early axial spondyloarthritis: data from the DESIR cohort. *Arthritis Rheumatol*, 2014, 66, s. 1734–1744.
- 19 Machado, M. A. – Moura, C. S. – Ferre, F., et al.: Treatment persistence in patients with rheumatoid arthritis and ankylosing spondylitis. *Rev Saude Publica*, 2016, 50, s. 50.
- 20 Sepriano, A. – Regel, A. – van der Heijde, D., et al.: Efficacy and safety of biological and targeted-synthetic DMARDs: a systematic literature review informing the 2016 update of the ASAS/EULAR recommendations for the management of axial spondyloarthritis. *RMD Open*, 2017, 3, s. e000396.
- 21 Hellgren, K. – Dreyer, L. – Arkema, E. V., et al.: Cancer risk in patients with spondyloarthritis treated with TNF inhibitors: a collaborative study from the ARTIS and DANBIO registers. *Ann Rheum Dis*, 2017, 76, s. 105–111.

## Desetiletá perzistence na inhibitorech TNFa v léčbě zánětlivých artritid

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- 1 Gerloni, V. – Pontikaki, I. – Gattinara, M., et al.: Efficacy of repeated intravenous infusions of an anti-tumor necrosis factor alpha monoclonal antibody, infliximab, in persistently active, refractory juvenile idiopathic arthritis: results of an open-label prospective study. *Arthritis Rheum*, 2005, 52, s. 548–553.
- 2 Favalli, E. G. – Pontikaki, I. – Becciolini, A., et al.: Real-life 10-year retention rate of first-line anti-TNF drugs for inflammatory arthritides in adult- and juvenile-onset populations: similarities and differences. *Clin Rheumatol*, 2017, doi: 10.1007/s10067-017-3712-8.

## Současné zkušenosti s tofacitinibem v léčbě revmatoidní artritidy

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- 1 Fleischmann, R. – Cutolo, M. – Genovese, M. C., et al.: Phase IIb dose-ranging study of the oral JAK inhibitor tofacitinib (CP-690,550) or adalimumab monotherapy versus placebo in patients with active rheumatoid arthritis with an inadequate response to disease-modifying antirheumatic drugs. *Arthritis Rheum*, 2012, 64, s. 617–629.
- 2 Fleischmann, R. – Kremer, J. – Cush, J., et al.: Placebo-controlled trial of tofacitinib monotherapy in rheumatoid arthritis. *NEJM*, 2012, 367, s. 495–507.
- 3 Kremer, M. – Cohen, S. – Wilkinson, B., et al.: A phase IIb dose-ranging study of the oral JAK inhibitor tofacitinib (CP-69,550) versus placebo in combination with background methotrexate therapy in patients with active rheumatoid arthritis and inadequate response to methotrexate alone. *Arthritis Rheum*, 2012, 64, s. 970–981.
- 4 Burmester, G. – Blanco, R. – Charles-Schoeman, C., et al.: Tofacitinib (CP-690,550) in combination with methotrexate in patients with active rheumatoid arthritis with an inadequate response to tumour necrosis factor inhibitors: a randomised phase 3 trial. *Lancet*, 2013, 381, s. 415–426.

- 5 Kremer, J. – Bloom, B. – Breedveld, F., et al.: The safety and efficacy of a JAK inhibitor in patients with active rheumatoid arthritis: results of a double-blind, placebo-controlled phase IIa trial of three dosage levels of CP-990,500 versus placebo. *Arthritis Rheum*, 2009, 60, s. 1895–1905.
- 6 Fleischmann, R. – Mysler, E. – Hall, S., et al.: Efficacy and safety of tofacitinib monotherapy, tofacitinib with methotrexate, and adalimumab with methotrexate in patients with rheumatoid arthritis (ORAL Strategy): a phase 3b/4, double blind, head-to-head, randomised controlled trial. *Lancet*, 2017, 390, s. 457–468.
- 7 Bergrath, E. – Gerber, R. A. – Gruben, D., et al.: Tofacitinib versus biologic treatments in moderate-to-severe rheumatoid arthritis patients who had an inadequate response to nonbiologic DMARDs: Systemic Literature Review and network meta-analysis. *Int J Rheumatol*, 2017, 8417249, doi: 10.1155/2017/8417249.
- 8 Reed, G. W. – Gerber, R. A. – Shan, Y., et al.: TNFI and tofacitinib monotherapy and comparative effectiveness in clinical practice: results from CORRONA registry. *Ann Rheum Dis*, 2017, 76, suppl. 2, s. 60 (abstrakt).
- 9 Conaghan, P. – Østergaard, M. – Bowes, M., et al.: Comparing the effects of tofacitinib, methotrexate and the combination, on bone marrow oedema, synovitis and bone erosion in methotrexate-naïve, early active rheumatoid arthritis: results of an exploratory randomised MRI study incorporating semiquantitative and quantitative techniques. *Ann Rheum Dis*, 2016, 75, s. 1024–1033.
- 10 Cohen, S. B. – Tanaka, Y. – Mariette, X., et al.: Long-term safety of tofacitinib for the treatment of rheumatoid arthritis up to 8.5 years: integrated analysis of data from the global clinical trials. *Ann Rheum Dis*, 2017, 76, s. 1253–1276.
- 11 Pope, J. – Keystone, E. – Jamal, S., et al.: Persistence of tofacitinib in the treatment rheumatoid arthritis in open-label, long-term extension studies up to 8 years. 2016 ACR/ARHP Annual Meeting, Washington, 13.–16. 11. 2016, abstrakt 1602.
- 12 Charles-Schoeman, C. – Wicker, P. – Gonzales-Gay, M. D., et al.: Cardiovascular safety findings in patients with rheumatoid arthritis treated with tofacitinib, an oral Janus kinase inhibitor. *Semin Arthritis Rheum*, 2016, 46, s. 261–271.
- 13 Smolen, J. S. – Landewé, R. – Bijlsma, J., et al.: EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update. *Ann Rheum Dis*, 2017, 76, s. 960–977.

## Golimumab – nový blokátor TNFa pro děti s juvenilní artritidou

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- 1 Cassidy, J. T. – Petty, R. E.: Chronic arthritis in childhood. In: Cassidy, J. T. – Petty, R. E. – Laxer, R. M. – Lindsley, C. B. (ed.): *Textbook of pediatric rheumatology*. W. B. Saunders, 2005, s. 206–260.
- 2 Petty, R. E. – Southwood, T. R. – Manners, P., et al.: International League of Associations for Rheumatology classification of juvenile idiopathic arthritis: second revision, Edmonton 2001. *J Rheumatol*, 2004, 31, s. 390–392.
- 3 Beukelman, T. – Patkar, N. M. – Saag, K. G., et al.: 2011 American College of Rheumatology recommendations for the treatment of juvenile idiopathic arthritis: initiation and safety monitoring of therapeutic agents for the treatment of arthritis and systemic features. *Arthritis Care Res* (Hoboken), 2011, 63, s. 465–482.
- 4 Giannini, E. H. – Ruperto, N. – Ravelli, A., et al.: Preliminary definition of improvement in juvenile arthritis. *Arthritis Rheum*, 1997, 40, s. 1202–1209.
- 5 Wallace, C. A. – Giannini, E. H. – Huang, B., et al.: American College of Rheumatology provisional criteria for defining clinical inactive disease in select categories of juvenile idiopathic arthritis. *Arthritis Care Res* (Hoboken), 2011, 63, s. 929–936.
- 6 Consolaro, A. – Ruperto, N. – Bazso, A., et al.: Development and validation of a composite disease activity score for juvenile idiopathic arthritis. *Arthritis Rheum*, 2009, 61, s. 658–666.
- 7 McErlane, F. – Beresford, M. W. – Bailliam, E. M., et al.: Validity of a three-variable Juvenile Arthritis Disease Activity Score in children with new-onset juvenile idiopathic arthritis. *Ann Rheum Dis*, 2013, 72, s. 1983–1988.
- 8 Viola, S. – Felici, E. – Magni-Manzoni, S., et al.: Development and validation of a clinical index for assessment of long-term damage in juvenile idiopathic arthritis. *Arthritis Rheum*, 2005, 52, s. 2092–2102.
- 9 Ruperto, N. – Murray, K. J. – Gerlioni, V., et al.: A randomized trial of parenteral methotrexate comparing an intermediate dose with a higher dose in children with juvenile idiopathic arthritis who failed to respond to standard doses of methotrexate. *Arthritis Rheum*, 2004, 50, s. 2191–2201.
- 10 Fráňová, J. – Fingerhutová, Š. – Kobrová, K., et al.: Methotrexate efficacy, but not its intolerance, is associated with the dose and route of administration. *Pediatr Rheumatol Online J*, 2016, 14, s. 36.
- 11 Clarke, S. L. N. – Sen, E. S. – Ramanan, A. V.: Juvenile idiopathic arthritis-associated uveitis. *Pediatric Rheumatology*, 2016, 14, s. 27.
- 12 Lovell, D. J. – Giannini, E. H. – Reiff, A., et al.: Etanercept in children with polyarticular juvenile rheumatoid arthritis. Pediatric Rheumatology Collaborative Study Group. *N Engl J Med*, 2000, 342, s. 763–769.
- 13 Giannini, E. H. – Ilowite, N. T. – Lovell, D. J., et al.: Long-term safety and effectiveness of etanercept in children with selected categories of juvenile idiopathic arthritis. *Arthritis Rheum*, 2009, 60, s. 2794–2804.
- 14 Hornett, G. – Burgos-Vargas, R. – Constantin, T., et al.: Efficacy and safety of open label etanercept on extended oligoarticular juvenile idiopathic arthritis, enthesitis-related arthritis and psoriatic arthritis: part 1 (week 12) of the CLIPPER study. *Ann Rheum Dis*, 2013, 0, s. 1–9, doi: 10.1136/annrheumdis-2012-203046.
- 15 Lovell, D. J. – Ruperto, N. – Goodman, S., et al.: Adalimumab with or without methotrexate in juvenile rheumatoid arthritis. *N Engl J Med*, 2008, 359, s. 810–820.
- 16 Brunner, H. I. – Ruperto, N. – Tzaribachev, N., et al.: Subcutaneous golimumab for children with active polyarticular-course juvenile idiopathic arthritis: results of a multicentre, double-blind, randomised-withdrawal trial. *Ann Rheum Dis*, 2017, 0, s. 1–9, doi: 10.1136/annrheumdis-2016-210456.
- 17 SIMPONI, 50MG INJ SOL ISP 1x0,5ML, Státní ústav pro kontrolu léčiv, dostupné z: [www.sukl.cz/modules/medication/detail.php?code=014956&tab=texts](http://www.sukl.cz/modules/medication/detail.php?code=014956&tab=texts), vyhledáno 11. 9. 2017.
- 18 Ringold, S. – Weiss, P. F. – Beukelman, T., et al.: 2013 Update on the 2011 American College of Rheumatology recommendations for the treatment of juvenile idiopathic arthritis: Recommendations for the medical therapy of children with systemic juvenile idiopathic arthritis and tuberculosis screening among children receiving biologic medications. *Arthritis Care Res*, 2013, 65, s. 1551–1563.
- 19 De Benedetti, F. – Brunner, H. I. – Ruperto, N., et al.: Randomized trial of tocilizumab in systemic juvenile idiopathic arthritis. *N Engl J Med*, 2012, 367, s. 2385–2395.
- 20 Ruperto, N. – Brunner, H. I. – Quartier, P., et al.: Two randomized trials of canakinumab in systemic juvenile idiopathic arthritis. *N Engl J Med*, 2012, 367, s. 2396–2406.
- 21 Quartier, P. – Allantaz, F. – Cimaz, R., et al.: Extended report: a multicentre, randomised, double-blind, placebo-controlled trial with the interleukin-1 receptor antagonist anakinra in patients with systemic-onset juvenile idiopathic arthritis (ANAJIS trial). *Ann Rheum Dis*, 2011, 70, s. 747–754.
- 22 Ruperto, N. – Lovell, D. J. – Quartier, P., et al.: Abatacept in children with juvenile idiopathic arthritis: a randomised, double-blind, placebo-controlled withdrawal trial. *Lancet*, 2008, 372, s. 383–391.

## Inhibice interleukinu 6 – moderní léčba obrovskobuněčné arteriitidy

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- 1 Dejaco, C. – Duftner, C. – Buttigereit, F., et al.: The spectrum of giant cell arteritis and polymyalgia rheumatica: revisiting the concept of the disease. *Rheumatology* (Oxford), 2017, 56, s. 506–515.
- 2 Hernández-Rodríguez, J. – García-Martínez, A. – Casademont, J., et al.: A strong initial systemic inflammatory response is associated with higher corticosteroid requirements and longer duration of therapy in patients with giant-cell arteritis. *Arthritis Rheum*, 2002, 47, s. 29–35.
- 3 Hunder, G. G. – Bloch, D. A. – Michel, B. A., et al.: The American College of Rheumatology 1990 criteria for the classification of giant cell arteritis. *Arthritis Rheum*, 1990, 33, s. 1122–1128.
- 4 Fraser, J. A. – Weyand, C. M. – Newman, N. J. – Boussole, V.: The treatment of giant cell arteritis. *Rev Neurol Dis*, 2008, 5, s. 140–152.
- 5 Dasgupta, B. – Panayi, G. S.: Interleukin-6 in serum of patients with polymyalgia rheumatica and giant cell arteritis. *Br J Rheumatol*, 1990, 29, s. 456–458.
- 6 Seitz, M. – Reichenbach, S. – Bonel, H. M., et al.: Rapid induction of remission in large vessel vasculitis by IL-6 blockade: a case series. *Swiss Med Wkly*, 2011, 141, w13156, doi: 10.4414/smwy.2011.13156.
- 7 Loricera, J. – Blanco, R. – Hernández, J. L., et al.: Tocilizumab in giant cell arteritis: multicenter open-label study of 22 patients. *Semin Arthritis Rheum*, 2015, 44, s. 717–723.
- 8 Régent, A. – Redeker, S. – Deroux, A., et al.: Tocilizumab in giant cell arteritis: a multicenter retrospective study of 34 patients. *J Rheumatol*, 2016, 43, s. 1547–1552.
- 9 Villiger, P. M. – Adler, S. – Kuchen, S., et al.: Tocilizumab for induction and maintenance of remission in giant cell arteritis: a phase 2, randomised, double-blind, placebo-controlled trial. *Lancet*, 2016, 387, s. 1921–1927.
- 10 Tuckwell, K. – Collinson, N. – Dimonaco, S., et al.: Newly diagnosed vs. relapsing giant cell arteritis: baseline data from the GiACTA trial. *Semin Arthritis Rheum*, 2017, 46, s. 657–664.
- 11 Stone, J. H. – Tuckwell, K. – Dimonaco, S., et al.: Trial of tocilizumab in giant cell arteritis. *N Engl J Med*, 2017, 377, s. 317–328.
- 12 Schmidt, J. – Smail, A. – Roche, B., et al.: Incidence of severe infections and infection-related mortality during the course of giant cell arteritis: a multicenter, prospective, double-cohort study. *Arthritis Rheumatol*, 2016, 68, s. 1477–1482.

# Vitamin D a osteoporóza

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- 1 World Health Organization Assessment of fracture risk and its application to screening for postmenopausal osteoporosis. Report of a WHO Study group Geneva: WHO, 1994 (Technical report Series 843). In: Osteoporosis prevention, diagnosis and therapy, 2001, *JAMA*, 285, s. 785–795.
- 2 Kanis, J. A. – Johnell, O. – Aea, O.: Long-term risk of osteoporotic fracture in Malmö. *Osteoporos Int*, 2000, 11, s. 669–674.
- 3 Nguyen, N. D. – Ahlborg, H. G. – Center, J. R., et al.: Residual Lifetime risk of fractures in women and men. *J Bone Miner Res*, 2007, 22, s. 781–788.
- 4 Bluc, D. – Nguyen, N. D. – Milch, V. E., et al.: Mortality risk associated with low-trauma osteoporotic fracture and subsequent fracture in men and women. *JAMA*, 2009, 301, s. 513–521.
- 5 Center, J. R. – Nguyen, T. V. – Schneider, D., et al.: Mortality after all major types of osteoporotic fracture in men and women: an observational study. *Lancet*, 1999, 353, s. 878–882.
- 6 Langsetmo, L. – Goltzman, D. – Kovac, C. S., et al.: Repeat low-trauma fractures occur frequently among men and women who have osteopenic BMD. *J Bone Miner Res*, 2009, 24, s. 1515–1522.
- 7 Ganda, K. – Puech, M. – Chen, J. S., et al.: Models of care for secondary prevention of osteoporotic fractures: a systematic review and meta-analysis. *Osteoporos Int*, 2013, 24, s. 393–406.
- 8 Binkley, N. – Blank, R. D. – Leslie, W. D., et al.: Osteoporosis in crisis: its time to focus on fracture. *J Bone Min Res*, 2017, 32, s. 1391–1394.
- 9 Tripkovic, L. – Wilson, L. R. – Hart, K., et al.: Daily supplementation with 15 µg vitamin D<sub>3</sub> compared with vitamin D<sub>3</sub> to increase winter-time 25-hydroxyvitamin D status in healthy South Asian and white European women: a 12-wk randomized, placebo-controlled food-fortification trial. *Am J Clin Nutr*, 2017, 106, s. 481–490.
- 10 Balsan, S. – Garabedian, M., et al.: Long term nocturnal calcium in fusionscancerickets and promote normal mineralization in hereditary resistance to 1,25 dihydroxyvitamin D. *J Clin Invest*, 1986, 77, s. 1661–1667.
- 11 Holick, M. F. – Garabedian, M.: Vitamin D Photobiology. In: Favus, M. J.: Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism. 2006 American Society for Bone and Mineral Research, Washington DC, s. 129–137.
- 12 Khosla, S.: The OPG/RANKL/RANK system. *Endocrinology*, 2001, 142, s. 5050–5055.
- 13 Parfitt, A. M.: Osteomalacia a related disorders. In: *Metabolic Bone Diseases and Clinical Related Disorders*. Academic Press, San Diego CA, 1998, s. 327–386.
- 14 Holick, M. F.: Vitamin D deficiency. *New Engl J Med*, 2007, 357, s. 266–281.
- 15 Novosad, P.: Vitamin D a jeho význam pro zdraví populace v ČR. Souhrnný referát konference o vitaminu D ve Zlíně, 2016. *Medicina pro pomoc*, 2017, 18.
- 16 Novosad, P.: Vitamin D – vývoj znalostí od nejstarších dob až po dnešek. *Farmakologická léčba*, 2016, 10, s. 63–68.
- 17 Novosad, P. – Hrdý, P. – Fojtík, P., et al.: Frequency and relation of bone phenotypes and vitamin D receptor gene polymorphisms BSM1, TAQ1, APA1 and FOK1 in the central Moravia region. *Osteoporosis International*, 2016, 27, suppl. 1, s. 34.
- 18 Novosad, P.: Monitoring metabolismu a léčby vitaminem D. *Medical Tribune*, 2016, 8, s. C6.
- 19 Bouillon, R.: Comparative analysis of nutritional guidelines for vitamin D. *Clin Exp Endocrinol*, 2017, 13, s. 466–479.
- 20 Whiting, D. S. J. – Kohrt, W. M. – Warren, S.: Kraenzl kinand Bonjour J-P. Review. Food fortification for bone health i adulthood a looping review. *Eur J Clin Nutrition*, 2016.
- 21 Power, C. E. – Ricciardi, C. – Berg, A. H., et al.: Vitamin D – binding protein modifies the vitamin D-bone mineral density relationship. *J Bone Miner Res*, 2011, 26, s. 1609–1616.
- 22 Power, C. E. – Ricciardi, C. – Berg, A. H., et al.: Vitamin D-binding protein and vitamin D status of black Americans and white Americans. *N Engl J Med*, 2013, 369, s. 1991–2000.
- 23 Marsh, D. – Åkesson, K. – Beaton, D. E., et al.: Wahl and the IOF CSA Fracture Working Group. *Osteoporos Int*, 2011, 22, s. 2051–2065.
- 24 Åkesson, K. – Marsh, D. – Mitchell, P. J., et al. & IOF Fracture Working Group: Capture the fracture: a best practice framework and global campaign to break the fragility fracture cycle. *Osteoporos Int*, 2013, DOI 10.1007/s00198-013-2348-z.
- 25 Novosad, P. – Hrdý, P. – Blahos, J. A.: Common project the osteological centre at Osteology Academy Zlín together with the Neurosurgical Department of Tomas Bata Regional Hospital in Zlín diagnostics, therapy and after care of patients with vertebral fractures in osteoporotic etiology. *Osteoporos Int*, 2013, 24, suppl. 1, s. 62–63.
- 26 Bikle, D. – Bouillon, R. – Thadhani, R., et al.: Vitamin D metabolites in captivity? Should measure free or total 25(OH)D to assess vitamin D status? *J Steroid Biochem Mol Biol*, v tisku.
- 27 Dawson-Hughes, B. – Heaney, R. P. – Holick, M. F., et al.: Estimates of optimal vitamin D status. *Osteoporos Int*, 2005, 16, s. 713–716.
- 28 Novotná, H. – Novosad, P. – Hrdý, P., et al.: Monitoring optimization of treatment with vitamin D. *Osteoporos Int*, 2016, 27, suppl. 1, s. 343.
- 29 Orchard, T. – Yıldız, V. – Steck, S. E., et al.: Dietary inflammatory index, bone mineral density, and risk of fracture in postmenopausal women: results from the women's health initiative. *Bone Miner Res*, 2017, 32, s. 1136–1146.

# Baricitinib – nový cílený syntetický (ts)DMARD pro léčbu revmatoidní artritidy

MUDr. Mária Filková, Ph.D. Revmatologický ústav, Praha

- 1 McInnes, I. B. – Schett, G.: Cytokines in the pathogenesis of rheumatoid arthritis. *Nature reviews Immunology*, 2007, 7, s. 429–442.
- 2 Smolen, J. S. – Landewe, R. – Bijlsma, J., et al.: EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update. *Ann Rheum Dis*, 2017, 76, s. 960–977.
- 3 Schwarz, D. M. – Bonelli, M. – Gadina, M., et al.: Type I/II cytokines, JAKs, and new strategies for treating autoimmune diseases. *Nat Rev Rheumatol*, 2016, 12, s. 25–36.
- 4 O’Shea, J. J. – Schwarz, D. M. – Villarino, A. V., et al.: The JAK-STAT pathway: impact on human disease and therapeutic intervention. *Annu Rev Med*, 2015, 66, s. 311–328.
- 5 O’Shea, J. J. – Kontzias, A. – Yamaoka, K., et al.: Janus kinase inhibitors in autoimmune diseases. *Ann Rheum Dis*, 2013, 72, suppl. 2, s. ii111–115.
- 6 Friedman, J. S. – Scherle, P. A. – Collins, R., et al.: Selective inhibition of JAK1 and JAK2 is efficacious in rodent models of arthritis: preclinical characterization of INCB028050. *J Immunol*, 2010, 184, s. 5298–5307.
- 7 Shi, J. G. – Chen, X. – Lee, F., et al.: The pharmacokinetics, pharmacodynamics, and safety of baricitinib, an oral JAK 1/2 inhibitor, in healthy volunteers. *J Clin Pharmacol*, 2014, 54, s. 1354–1361.
- 8 Keystone, E. C. – Tailor, P. C. – Drescher, E., et al.: Safety and efficacy of baricitinib at 24 weeks in patients with rheumatoid arthritis who have had an inadequate response to methotrexate. *Ann Rheum Dis*, 2015, 74, s. 333–340.
- 9 Fleischmann, R. – Schiff, M. – van der Heijde, D., et al.: Baricitinib, methotrexate, or combination in patients with rheumatoid arthritis and no or limited prior disease-modifying antirheumatic drug treatment. *Arthritis & Rheum*, 2017, 69, s. 506–517.
- 10 Dougados, M. – van der Heijde, D. – Chen, Y. C., et al.: Baricitinib in patients with inadequate response or intolerance to conventional synthetic DMARDs: results from the RA-BUILD study. *Ann Rheum Dis*, 2017, 76, s. 88–95.
- 11 Tailor, P. C. – Keystone, E. C. – van der Heijde, D., et al.: Baricitinib versus placebo or adalimumab in rheumatoid arthritis. *N Engl J Med*, 2017, 376, s. 652–662.
- 12 Genovese, M. C. – Kremer, J. – Zamani, O., et al.: Baricitinib in patients with refractory rheumatoid arthritis. *N Engl J Med*, 2016, 374, s. 1243–1252.
- 13 Simon, T. A. – Askling, J. – Lacaille, D., et al.: Infections requiring hospitalization in the abatacept clinical development program: an epidemiological assessment. *Arthritis Res Ther*, 2010, 12, s. R67.

# Mukopolysacharidózy – diagnostické postupy

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- 1 Clarke, L. A. – Hollak, C. A.: The clinical spectrum and pathophysiology of skeletal complications in lysosomal storage disorders. *Best Pract Res Clin Endocrinol Metab*, 2015, 29, s. 219–235.
- 2 Ješina, P. – Magner, M. – Poupeřová, H., et al.: Mukopolysacharidóza I – klinické projevy u 24 dětí z České republiky a Slovenska. *Čes-slov Pediatr*, 2011, 66, s. 6–11.
- 3 Poupeřová, H. – Ledvinová, J. – Berná, L., et al.: The birth prevalence of lysosomal disorders in the Czech Republic: comparison with data in different populations. *J Inher Metab Dis*, 2010, 33, s. 387–396.
- 4 Malinová, V. – Honzík, T.: Lysosomální onemocnění – současné možnosti diagnostiky a terapie. *Pediatrie pro praxi*, 2013, 14, s. 99–103, 157–160.
- 5 Ješina, P.: Revmatologické projevy u pacientů s mukopolysacharidózou. *Acta Medicinae*, 2015, 4, s. 78–82.
- 6 Wraith, J. E. – Jones, S.: Mucopolysaccharidosis type I. *Pediatr Endocrinol Rev*, 2014, 33, s. 387–396.
- 7 Scarpa, M. – Ceck, M., et al.: Mucopolysaccharidosis type II (Huntington syndrome): a clinical review and recommendations for treatment in the era of enzyme replacement therapy. *Eur J Pediatr*, 2008, 167, s. 267–277.
- 8 Lehman, T. J. A. – Miller, N. – Norquist, B., et al.: Diagnosis of the mucopolysaccharidoses. *Rheumatology*, 2011, 50, s. 41–48.

# Apremilast v léčbě psoriatické artritidy

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- 1 Schafer, P. H. – Parton, A. – Gandhi, A. K., et al.: Apremilast, a cAMP phosphodiesterase-4 inhibitor, demonstrates anti-inflammatory activity *in vitro* and in a model of psoriasis. *Br J Pharmacol*, 2010, 159, s. 842–855.
- 2 Schett, G. – Wollenhaupt, J. – Papp, K., et al.: Oral apremilast in the treatment of active psoriatic arthritis: results of a multicenter, randomized, double-blind, placebo-controlled study. *Arthritis Rheum*, 2012, 64, s. 3156–3167.
- 3 Reich, K. – Papp, K. – Leonardi, C., et al.: Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with moderate to severe psoriasis: 16-week results of a phase 3, randomized, controlled trial (ESTEEM 1). Ústní prezentace. Výroční zasedání American Academy of Dermatology, Miami, 2013.
- 4 Kavanaugh, A. – Mease, P. J. – Gomez-Reino, J. J., et al.: Treatment of psoriatic arthritis in a phase 3 randomised, placebo-controlled trial with apremilast, an oral phosphodiesterase 4 inhibitor. *Ann Rheum Dis*, 2014, 73, s. 1020–1026.
- 5 Ramiro, S. – Smolen, S. – Landewé, R., et al.: Pharmacological treatment of psoriatic arthritis: a systematic literature review for the 2015 update of the EULAR recommendations for the management of psoriatic arthritis. *Ann Rheum Dis*, 2015, 0, s. 1–9.
- 6 Papp, K. – Reich, K. – Leonardi, C., et al.: Apremilast, an oral phosphodiesterase 4 inhibitor in nail and scalp psoriasis: 52-week results from the ESTEEM 1 study. Abstrakt P1601. Výroční kongres European Academy of Dermatology and Venereology, Istanbul, 2013.
- 7 Kavanaugh, A. – Mease, P. J. – Gomez-Reino, J. J., et al.: Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with psoriatic arthritis: results of a phase 3, randomized, controlled trial. Abstrakt L13. *Arthritis Rheum*, 2012, 64, s. 4172–4173.
- 8 Gossec, L. – Smolen, J. S. – Ramiro, S., et al.: European League Against Rheumatism (EULAR) recommendations for the management of psoriatic arthritis with pharmacological therapies 2015 update. *Ann Rheum Dis*, 2015, 0, s. 1–12.
- 9 Štolfa, J. – Vencovský, J. – Pavelka, K.: Doporučené léčebné postupy pro psoriatickou artridu. *Česká revmatologie*, 2016, 24, s. 142–152.
- 10 Kavanaugh, A., et al.: Apremilast Safe, Effective at 3 Years in Psoriatic Arthritis. Výroční zasedání 2015 ACR/ARHP. Poster 2843.
- 11 Gladman, D., et al.: Apremilast, an oral phosphodiesterase 4 inhibitor, is associated with long-term (104-week) improvements in enthesitis and dactylitis in patients with psoriatic arthritis: pooled results from three phase III, randomized, controlled trials. Poster prezentovaný na ACR/ARHP 2015. Poster 2888.
- 12 Rich, P., et al.: Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with difficult-to-treat nail and scalp psoriasis: Results of 2 phase III randomized, controlled trials (ESTEEM 1 and ESTEEM 2). *J Am Acad Dermatol*, leden 2016, s. 134–142.
- 13 Mease, P., et al.: Prezentováno na: the Annual European Congress of Rheumatology EULAR 2016; 8–11. 6. 2016. Poster FRI0470.
- 14 Mease, P., et al.: Long-term safety and tolerability of apremilast, an oral phosphodiesterase 4 inhibitor, in patients with psoriatic arthritis: pooled safety analysis of three phase 3, randomized, controlled trials (Abstract SATO408). *Ann Rheum Dis*, 2014, 73, s. 742–743. EULAR 2014. Poster SATO408.
- 15 Papp, K. – Griffith, C. – Leonardi, C., et al.: Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with moderate to severe psoriasis: results from the randomized treatment withdrawal phase of a phase 3, randomized, controlled trial (ESTEEM 1). *J Am Acad Dermatol*, 2014, 70, suppl. 1, abstrakt P8359.
- 16 Mease, P. – Adebaio, A. – Gladman, D., et al.: Long-term (104-week) safety profile of apremilast, an oral phosphodiesterase 4 inhibitor, in patients with psoriatic arthritis: pooled safety analysis of three phase 3, randomized, controlled trials [abstract THU0432]. Prezentováno na: 16<sup>th</sup> Annual EULAR Congress, 2015.

# Abatacept v léčbě revmatoidní artritidy

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- 1 Pincus, T. – Callahan, L. F. – Sale, W. G., et al.: Severe functional declines, work disability and increased mortality in seventy-five rheumatoid arthritis patients studied over nine years. *Arthritis Rheum*, 1984, 27, s. 864–872.
- 2 Dougados, M. – Soubrier, M. – Antunez, A., et al.: Prevalence of comorbidities in rheumatoid arthritis and evaluation of their monitoring: results of an international, cross-sectional study (COMORA). *Ann Rheum Dis*, 2014, 73, s. 62–68.
- 3 Smolen, J. S. – Landewe, R. – Breedveld, F. C., et al.: EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs. *Ann Rheum Dis*, 2010, 69, s. 964–975.
- 4 Smolen, J. S. – Landewe, R. – Breedveld, F. C., et al.: EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2013 update. *Ann Rheum Dis*, 2014, 73, s. 492–509.
- 5 Pavelka, K. – Vencovský, J.: Doporučení České revmatologické společnosti pro léčbu revmatoidní artritidy. *Česká Revmatologie*, 2010, 18, s. 182–191.
- 6 Šenolt, L. – Mann, H. – Závada, J. – Pavelka, K. – Vencovský, J.: Doporučení České revmatologické společnosti ČLS JEP pro farmakologickou léčbu revmatoidní artritidy 2017. *Čes Revmatol*, 2017, 25, 1, s. 8–24.
- 7 Combe, B. – Dougados, M. – Goupille, P., et al.: Prognostic factors for radiographic damage in early rheumatoid arthritis: a multiparameter prospective study. *Arthritis Rheum*, 2001, 44, s. 1736–1743.
- 8 Smolen, J. – van der Heide, D. – St Clair, E. W., et al.: Predictors of joint damage in patients with early rheumatoid arthritis treated with high-dose methotrexate without or with concomitant infliximab. Results from the ASPIRE trial. *Arthritis Rheum*, 2006, 54, s. 702–710.
- 9 Kremer, J. M. – Westhovens, R. – Leon, M., et al.: Treatment of rheumatoid arthritis by selective inhibition of T-cell activation with fusion protein CTLA4Ig. *N Engl J Med*, 2003, 349, s. 1907–1915.
- 10 Linsley, P. S. – Brady, W. – Urnes, M., et al.: CTLA-4 is a second receptor for the B cell activation antigen B7. *J Exp Med*, 1991, 174, s. 561–569.
- 11 Nash, P. – Ludivico, C. – Delaet, I., et al.: Improvements in disease activity and physical function in patients with RA receiving subcutaneous abatacept in the presence or absence of an initial IV loading dose. *Ann Rheum Dis*, 2011, 70, SAT0287.
- 12 Nash, P. – Ludivico, C. – Delaet, I., et al.: Efficacy, safety and pharmacokinetics of subcutaneous abatacept in patients with rheumatoid arthritis, with or without an intravenous (IV) loading dose. *Arthritis Rheum*, 2011, 63, s. S151.
- 13 Murthy, B. – Gao, L. – Vakkalagadda, B., et al.: Clinical pharmacokinetics of subcutaneous abatacept in the presence or absence of an intravenous loading dose in patients with rheumatoid arthritis. *Ann Rheum Dis*, 2011, 70, suppl. 3, SAT0284.
- 14 Kaine, J. – Gladstein, G. – Strusberg, I., et al.: Evaluation of abatacept administered subcutaneously in adults with active rheumatoid arthritis: impact of withdrawal and reintroduction on immunogenicity, efficacy and safety (phase IIb ALLOW study). *Ann Rheum Dis*, 2012, 71, s. 38–44.
- 15 Westhovens, R. – Robles, M. – Ximenes, A. C., et al.: Clinical efficacy and safety of abatacept in methotrexate-naïve patients with early rheumatoid arthritis and poor prognostic factors. *Ann Rheum Dis*, 2009, 68, s. 1870–1877.
- 16 Bathon, J. – Robles, M. – Ximenes, A. C., et al.: Sustained disease remission and inhibition of radiographic progression in methotrexate-naïve patients with rheumatoid arthritis and poor prognostic factors treated with abatacept: 2-year outcomes. *Ann Rheum Dis*, doi: 10.1136/ard.2010.145268
- 17 Smolen, J. S. – Wollenhaupt, J. – Gomez-Reino, J. J., et al.: Attainment and characteristics of clinical remission according to the new ACR-EULAR criteria in abatacept-treated patients with early rheumatoid arthritis: new analyses from the abatacept study to gauge remission and joint damage progression in methotrexate (MTX)-naïve patients with early erosive rheumatoid arthritis (AGREE). *Arthritis Research & Therapy*, 2015, 17, s. 157.
- 18 Emery, P. – Burnester, G. R. – Bykerk, V. P., et al.: Evaluating drug-free remission with abatacept in early rheumatoid arthritis: results from the phase 3b, multicentre, randomised, active-controlled AVERT study of 24 months, with a 12-month, double-blind treatment period. *Ann Rheum Dis*, 2015, 74, s. 19–26.
- 19 Schiff, M. – Weinblatt, M. E. – Valente, R., et al.: Head-to-head comparison of subcutaneous abatacept versus adalimumab for rheumatoid arthritis: two-year efficacy and safety findings from AMPLEx trial. *Ann Rheum Dis*, doi: 10.1136/annrheumdis-2013-203843.
- 20 Sokolove, J. – Schiff, M. – Fleischmann, R., et al.: Impact of baseline anti-cyclic citrullinated peptide-2 antibody concentration on efficacy outcomes following treatment with subcutaneous abatacept or adalimumab: 2-year results from the AMPLEx trial. *Ann Rheum Dis*, doi: 10.1136/annrheumdis-2015-207942.
- 21 Gottenberg, J. E. – Courvoisier, D. S. – Hernandez, M. V., et al.: Brief report: association of rheumatoid factor and anti-citrullinated protein antibody positivity with better effectiveness of abatacept: results from the Pan-European Registry analysis. *Arthritis Rheumatol*, 2016, 68, s. 1346–1352, doi: 10.1002/art.39595.
- 22 Gottenberg, J. E. – Ravaud, P. – Cantagrel, A., et al.: Positivity for anti-cyclic citrullinated peptide is associated with a better response to abatacept: data from the 'Orencia and Rheumatoid Arthritis' registry. *Ann Rheum Dis*, 2012, 71, s. 1815–1819, doi: 10.1136/annrheumdis-2011-201109.
- 23 Blair, H. A. – Deeks, E. D.: Abatacept: a review in rheumatoid arthritis. *Drugs*, 2017, 77, s. 1221–1233, doi: 10.1007/s40265-017-0775-4.
- 24 Horák, P. – Skácelová, M. – Hejduk, K., et al.: Abatacept and its use in the treatment of rheumatoid arthritis (RA) in the Czech Republic – data from the ATTRA registry. *Clinical Rheumatology*, 2013, 32, s. 1451–1458.
- 25 Dougados, M. – Schmidely, N. – Le Bars, M., et al.: Evaluation of different methods used to assess disease activity in rheumatoid arthritis: analyses of abatacept clinical trial data. *Ann Rheum Dis*, 2009, 68, s. 484–489.
- 26 Westhovens, R. – Luggen, M. – Russell, A., et al.: Abatacept provides durable improvements in RA disease status and a consistent safety profile through 3 years in the aim and attain trials. *Rheumatology*, 2008, 47, suppl. 2, s. 46.
- 27 Emery, P. – Kremer, J. M. – Moreland, R., et al.: Long-term efficacy and safety of abatacept through 5 years of treatment in rheumatoid arthritis patients with an inadequate response to methotrexate. *Rheumatology*, 2008, 4, suppl. 2, s. 48.
- 28 Kremer, J. M. – Russell, A. S. – Emery, P., et al.: Long-term safety, efficacy and inhibition of radiographic progression with abatacept treatment in patients with rheumatoid arthritis and an inadequate response to methotrexate: 3-year results from the AIM trial. *Ann Rheum Dis*, 2011, 70, s. 1826–1830.
- 29 Hetland, M. L. – Christensen, I. J. – Tarp, U., et al.: Direct comparison of treatment responses, remission rates, and drug adherence in patients with rheumatoid arthritis treated with adalimumab, etanercept, or infliximab: results from eight years of surveillance of clinical practice in the nationwide Danish DANBIO registry. *Arthritis Rheum*, 2010, 62, s. 22–32.
- 30 European Medicines Agency: SPC přípravku Orencia (abatacept), 2016, dostupné z: <http://www.ema.europa.eu>, vyhledáno 1. 6. 2017.

# Výsledky studie fáze III s emicizumabem u hemofilie byly publikovány

- 1 WFH. Guidelines for the management of hemophilia. 2012. Dostupné z: <http://www1.wfh.org/publications/files/pdf-1472.pdf>, vyhledáno 13. 7. 2017.
- 2 Berntorp, E. – Shapiro, A. D.: Modern haemophilia care. *Lancet*, 2012, 370, s. 1447–1456.
- 3 Marder, V. J., et al.: *Hemostasis and thrombosis. Basic principles and clinical practice*. 2013, Milwaukee, Wisconsin, Lippincott Williams and Wilkins.
- 4 Franchini, M. – Mannucci, P. M.: Hemophilia A in the third millennium. *Blood Rev*, 2013, s. 179–184.
- 5 Flood, E., et al.: Illustrating the impact of mild/moderate and severe haemophilia on health-related quality of life: hypothesised conceptual models. *European Journal of Haematology*, 2014, 93, suppl. 75, s. 9–18.
- 6 Young, G.: New challenges in hemophilia: long-term outcomes and complications. *Hematology Am Soc Hematol Educ Program*, 2012, s. 362–368.
- 7 Zanon, E. – Iorio, A. – Rocino, A., et al.: Intracranial hemorrhage in the Italian population of haemophilia patients with and without inhibitors. *Haemophilia*, 2012, 18, s. 39–45.
- 8 Gomez, K., et al.: Key issues in inhibitor management in patients with haemophilia. *Blood Transfus*, 2014, 12, s. s319–s329.
- 9 Whelan, S. F., et al.: Distinct characteristics of antibody responses against factor VIII in healthy individuals and in different cohorts of hemophilia A patients. *Blood*, 2013, 121, s. 1039–1048.
- 10 Berntorp, E.: Differential response to bypassing agents complicates treatment in patients with haemophilia and inhibitors. *Haemophilia*, 2009, 15, s. 3–10.