Disclosure of Interests: Guillaume Servet: None declared, Christophe Pas- not: None declared, Eric Piver: None declared, Oscar Knight: None declared, Valerie Deschênes-Pensec: Grant/research support from: Roche, Chugai, Speakers bureau: MSD, BMS, UCB, Roche, Stéphane Rist: None declared, Aleth Perdriger: None declared, Elisabeth Gervais Speakers bureau: Abbvie, BMS, MSD, Pfizer, Roche, UCB, Novartis, Emmanuelle Dernis: None declared, Benoît Le Goff Speakers bureau: Abbvie, BMS, Janssen, MSD, Pfizer, Sanofi-Genezyme, UCB, Novartis, Laurence Picon: None declared, Philippe Goupille Grant/research support from: Financial compensation received from MSD on pro-rata basis for participation in Scientific Committee meetings and functions for this study, Speakers bureau: Abbvie, Biogaran, BMS, Hospira, Janssen, MSD, Pfizer, Sanofi-Genezyme, UCB, Denis Mullemann Speakers bureau: Pfizer, Novartis, Grititls

AB0395

NO CLINICAL RELEVANT CHANGES IN EFFICACY, QUALITY OF LIFE AND TOLERABILITY FOR RA PATIENTS IN CLINICAL REMISSION 16 WEEKS AFTER SWITCHING TO THE BIOSIMILAR IFX CT-P13 COMPARED TO THE ORIGINATOR; A DESCRIPTIVE REPORT

Michael Nurmohamed1, Reinhard Bos2, Marc Køk3, Lindy-Anne Korsawgen4, Petra Vos5, Joanne Bloemsaat6, Théo Rispens7, Yvonne van Megen6, Gerard D’Haens8, Gerrit van den Akker9, Claudio Antonucci10, Brecht Weber11, Mark Drenth12, Hidde van der Weele13, Marieke Weese-Mayer14, Sanne Dijkstra15, Koen Vos16, Yvonne van Megen17, Gerard D’Haens18, Gerrit van den Akker19, Brecht Weber20, Mark Drenth21, Hidde van der Weele22, Marieke Weese-Mayer23, Koen Vos24

Background: Switching patients from originator infliximab (IFX) to biosimilar IFX can reduce healthcare costs. Several studies have shown that switching does not affect the efficacy for rheumatoid arthritis (RA) patients,1 however prospectively collected data on pharmacokinetics, immunogenicity and quality of life (QoL) is scarce.

Objectives: We report data collected from RA patients in clinical remission enrolled in the SECURE study (IFX4501; registered at www.clinicaltrialsregister.eu 2014-004904-31). In SECURE we collected IFX serum concentrations, efficacy, quality of life (QoL) and safety data of patients switched from originator IFX to biosimilar IFX CT-P13 for up to 16 weeks. The IBD cohort of this study has been published elsewhere (3).

Methods: In this prospective, open-label, intervention, non-inferiority, multi-center, phase IV trial, adult RA patients in clinical remission >30 weeks (DAS<3.2) at stable IFX dose were switched from originator IFX to CT-P13. Patients were followed for 16 weeks (2 infusions) after switching. Primary endpoint was the CT-P13 serum concentrations, efficacy, quality of life (QoL) and safety data of patients switched from originator IFX to biosimilar IFX CT-P13 for up to 16 weeks. The IBD cohort of this study has been published elsewhere (3).

Results: Between July 2015 and December 2016, 34 RA patients were recruited. Two patients were excluded from the safety population (1 no IMP exposure; 1 no efficacy assessment) and two patients discontinued before week 16 (1 AE: renal colic; 1 personal reasons), leaving 30 patients in the intent to treat population.

For 11 patients, blood samples were obtained at baseline and week 16. The IFX ratio at week 16 (biosimilar) compared to baseline (originator) was 107.40% (90% CI 90.35:127.66), indicating non inferiority. The number of included patients was too low for firm conclusions.

The mean difference (95% CI) at week 16 compared to baseline was for the CRP -0.22 (-1.80:1.37), for DAS 0.12 (-0.06:0.30), for EQSD thermometer -3.19 (-9.78:3.41) and EQSD Health status -0.05 (-0.08:0.01). These changes were not clinical relevant.

In total 76 AEs were reported by 29 (90.6%) patients; 27 of these AEs were related to the study treatment. The most frequently reported AEs (≥5% subjects) were fatigue (9.4%), headache (6.3%), arthralgia (15.6%), back pain (9.4%), cough (6.3%), viral upper respiratory tract infection (15.6%) bursitis (6.3%) and pain in extremity (6.3%). Two non-related serious AEs were reported (ovarian cyst and benign parathyroid tumour). No AEs were detected by inclusion or during the follow-up period.

Conclusion: In this prospective, intervention study in RA patients in clinical remission there were no clinically relevant changes in clinical and biochemical efficacy, quality of life and tolerability 16 weeks after switching to the biosimilar IFX CT-P13 compared to the originator.

This study is sponsored by Mundipharma Pharmaceuticals BV.

REFERENCES


Disclosure of Interests: Michael Nurmohamed Grant/research support from: AbbVie; Bristol-Myers Squibb, Celgene, Eli Lilly, Janssen, Menarini, MSD, Mundipharma, Pfizer, Roche, Sanofi and UCB, Consultant for: Abb-Vie; Bristol-Myers Squibb, Celgene, Eli Lilly, Janssen, Menarini, MSD, Mundipharma, Pfizer, Roche, Sanofi and UCB, Reinhard Bos Grant/research support from: SUN Pharma, Marc Køk: None declared, Lindy-Anne Korsawgen: None declared, Petra Vos: None declared, Joanne Bloemsaat Employee of: Mundipharma Pharmaceuticals B.V, Theo Rispens Grant/ research support from: Germab, Speakers bureau: Pfizer, Abbvie, Regeneron, Yvonne van Megen Grant/research support from: Mundipharma Pharmaceuticals B.V, Gerard D’Haens Consultant for: Abbvie, Ablaxyn, Amakem, Argen, AM Pharma, Avaxia, Biogen, Bristol Meiers Squibb, Boehringer Ingehelm, Cel gene/Recepteils, Celtirion, Cosmo, Covidien/Medtronic, Ferring, FdKALK Pharma, Eli Lilly, Engene, Galapagos, Genentech/Roche, Gilead, Glaxo Smith Kline, Innomic, Johnson and Johnson, Lameplo, Lycera, Medimet rics, Millenium/Takeda, Mitsubishi Pharma, Merck Sharp Dome, Mundipharma, Nbxiotics, Novonordisk, Otsuka, Pfizer/Hospira, Prometheus laboratories/Nestle, Protagonist, Robots Clinical Trials, Salix, Samsung Bioepis, Sandoz, Setpoint, Shire, Teva, Tingenix, Tilitoff, Topivert, Versanti and Vidor; received speaker fees from Abbvie, Biogen, Ferring, Johnson and Johnson, Merck, Sharp Dome, Mundipharma, Norigine, Pfizer, Palmer, Sam sung Bioepis, Shire, Millenium/Takeda, Tilitoff and Vitor.


AB0396

MONITORING OF PATIENTS WITH RHEUMATOID ARTHRITIS BY INDOCYANINE GREEN (ICG) ENHANCED FLUORESCENCE OPTICAL IMAGING TREATED WITH ANTI-TNF/THERAPY

Simon Hertram1, Jens Klotzsche3, Querino Scherer4, Anne-Marie Glimm5, Gerd Rüdiger Burmester1, Gabriel Schmitt1, Thomas Häupl2, Sandra Hermann1, Marina Backhaus1, Sarah Ohmdorf1, 1Charité Universitätsmedizin Berlin, Department of Rheumatology and Clinical Immunology, Berlin, Germany; 2Deutsches Rheumaforshungszentrum (DRFZ) Berlin, Berlin, Germany; 3Charité Research Organisation GmbH (CRO), Charité – Universitätsmedizin Berlin, Berlin, Germany

Background: Indocyanine (ICG)-enhanced fluorescence optical imaging (FOI) by the Xiralted® system enables visualization of inflammation in the hands in rheumatoid arthritis (RA).

Objectives: To investigate the ability of monitoring treatment response under Certolizumab pegol (CZP) in patients with rheumatoid arthritis (RA) by the ICG-enhanced FOI method Xiralted® as compared to clinical disease activity, laboratory parameters, and musculoskeletal ultrasound (US).

Methods: CZP-naïve patients with RA were eligible for this study, which comprised of an open-label part of an investigator-initiated treatment period with CZP. Disease activity was monitored by the clinical score DAS28, laboratory parameters for systemic inflammation (CRP and ESR), ultrasonography (US7 score [1]) and by FOI at baseline (before CZP) and after 6, 12, 24, and 52 weeks under CZP therapy.

Results: In this study, 28 patients (female 92.9%, mean age 49.4±13.3) with RA were included and treated with CZP over a period of 52 weeks. All patients received CZP for at least 12 weeks (w), n=27 until w24, and n=18 received CZP throughout the entire 52 weeks. DAS28 decreased from moderate disease activity (median 4.6) at baseline to low disease activity (median 2.7) at w52 (p <0.001). CRP/ESR values also reduced from baseline to w52 (n.s.). FOI in phase 1 showed a continuous decrease of enhancement during the course of the treatment period: from baseline (median 1.5, IQR 0.9-5) to w6 (median 1.0, IQR 0-3), to w12 (median 0.5, IQR 0-3), to w24 (median 0.0, IQR 0-3) and visit w52 (median 0.0, IQR 0-2). An image example is given by the Figure for baseline and w52. The results for other FOI phases 2, 3 and 5PM did not show a decrease over the treatment period. US-detected synovitis and tenosynovitis by the US7 score presented to be responsive under therapy. Especially US7-synovitis in Power Doppler (PD) was reduced from baseline (median 2.0, IQR 1-4) to w52 (median 0.5, IQR 0-2).

Conclusion: FOI in phase 1 appears to be a valuable tool for fast and easy monitoring of treatment response to CZP in a clinical setting. FOI may provide an additional method to evaluate inflammation of wrist and finger joints of RA patients in follow-up studies.

REFERENCES


Figure 1. Decrease of ICG-enhancement in FOI, phase 1 (P1). Left image shows P1 of both hands at baseline (before CZP). Right image shows FOI in P1 of the same patient at w52 under CZP.

Legend: ICG: indocyanine green; FOI: fluorescence optical imaging; CZP: Certolizumab pegol; w52: week 52

Acknowledgement: UCB Pharma GmbH provided financial support of this study. UCB Pharma GmbH did not have any influence on the statistical analysis or preparation of the abstract. This study was also supported by the Bundesministerium für Bildung und Forschung (BMBF) project “ArthroMark”, subproject no. 7.

Disclosures of Interest: Simon Hertrampf: None declared, Jens Klotsche: None declared, Querino Schefer: None declared, Anne-Marie Grimm: None declared, Gerald Rüdiger: Burmester Consultant for: Roche, Sanofi-Genzyme, Speakers bureau for: Roche, Sanofi-Genzyme, Gabriela Schmitt: None declared, Thomas Häupl: None declared, Sandra Hermann: None declared, Heiseki Yu: None declared, Akihiko Nakabayashi: None declared, Takanori Fujimura: None declared, Sho Sendo: None declared, Takaichi Okano: None declared, Yoshihide Ichise: None declared, Ikuko Naka: None declared, Takanori Fujimura: None declared, Shosuke Nohata: None declared, Hiroshi Ito: None declared, Shinji Ito: None declared, Takeshi Kato: None declared, Yusuke Kafuri: None declared, Hiroshi Kikuchi: None declared.

AB0397

PREDICTION OF RECURRENCE AFTER DISCONTINUATION OF ADALIMUMAB BY USING ULTRASOUND ASSESSMENT -THE PROUD STUDY-

Tadashi Okano1, Ryota Harak2, Makoto Wada3, Tatsuya Koike4, Kenji Mamoto5, Yuko Sugiioka6, Masahiro Tada7, Takanori Fujimura8, Sho Sendo9, Takachi Okano9, Yoshidise Ichise10, Ikuo Naka11, Heiseki Yu12, Akihiko Nakabayashi13, Yoshiobu Matsuura14, Takahiro Yoshikawa12, Masao Tamura15, Masayasu Kitano16, Yasuhide Kanayama17, YuasaKo Hayama18. PROUD study working group. 1Osaka City University Graduate School of Medicine, Osaka, Japan; 2Nara Medical University, Nara, Japan; 3Kyoto Prefectural University of Medicine, Kyoto, Japan; 4Osaka City General Hospital, Osaka, Japan; 5Takanohara Central Hospital, Nara, Japan; 6Kobe University Graduate School of Medicine, Kobe, Japan; 7Toei Naika Raimarchika, Osaka, Japan; 8Sakai City Medical Center, Osaka, Japan; 9Hyogo College of Medicine, Hyogo, Japan; 10Tottori Kosei Hospital, Tottori, Japan

Background: Tapering of biological disease-modifying anti-rheumatic drugs (DMARDs) is recommended by the European League against Rheumatism (EULAR) in patients with stable rheumatoid arthritis (RA) disease activity. Discontinuation of biological DMARDs can be successful in some patients. However, the predictive factors enabling established patients with RA to remain free of biological DMARDs is unclear. Recently, ultrasonography (US) has become an important imaging tool to identify subclinical synovitis, even in patients with remission. There have been few reports on whether residual synovitis as shown by US can predict relapse of disease activity after discontinuation of biological DMARDs.

Objectives: We aimed to investigate the usefulness of US for predicting relapse in patients in remission for RA after discontinuation of adalimumab (ADA).

Methods: Patients who were using ADA and in remission (Disease Activity Score 28-joint count C reactive protein (DAS28-CRP) <2.6) for longer than 24 weeks were included in this multicenter prospective study. ADA was stopped and patients were followed up until week 52. Predictive factors for relapse at 24 and 52 weeks were analyzed from baseline clinical data, including a US examination. ADA was restarted at the time of relapse (DAS28-CRP >3.2). US assessment was performed at 0, 12, 24, 36, and 52 weeks and at the time of relapse. A US examination was performed at the bilateral first to fifth metacarpophalangeal joints, first interphalangeal and second to fifth proximal interphalangeal joints, and first to fifth metatarsophalangeal joints, by using a high-frequency linear transducer. The gray scale (GS) and power Doppler (PD) signals were scored in each synovial site using a semi-quantitative scale from 0 to 3.

Moreover, the modified Total Sharp Score (mTSS) was evaluated at 0, 24, and 52 weeks by conventional radiography. The patients who relapsed were administrated ADA again.

Results: Fifty-three patients were included. Ten (18.9%) patients relapsed up to week 24 and 20 (37.7%) patients relapsed up to 52 weeks. The relapsed patients tended to have a long disease duration, but baseline US findings could not predict relapse. Increases in the PD score were observed during follow-up in some relapsed patients. Disease activity control was good after ADA was restarted in the relapsed group, and there was no difference in progression of the mTSS in the relapsed and non-relapsed groups.

Conclusion: Predicting relapse by baseline US findings after discontinuation of ADA in remission is difficult. However, an increased PD score in a following US examination might be useful for early detection of relapse. Radiographic progression is not significantly different in patients with relapse and those without relapse.

REFERENCES


Disclosures of Interest: Tadashi Okano Speakers bureau: AbbVie, Ryota Harak: None declared, Makoto Wada: None declared, Tatsuya Koihe Speakers bureau: AbbVie, Astellas Pharma Inc., Bristol-Myers Squibb, Chugai Pharmaceutical, Eisai, Janssen, Lilly, Mitsubishi Tanabe Pharma Corporation, MSD, Ono Pharmaceutical, Pfizer, Roche, Takeda Pharmaceutical, Teijin Pharma, and UCB, Kenji Mamoto: None declared, Yuko Sugiioka: None declared, Masahiro Tada Speakers bureau: AbbVie, Astellas Pharma, Bristol-Myers Squibb, Chugai Pharmaceutical, Eisai, Janssen Pharmaceutical, Mitsubishi Tanabe Pharma Corporation, Ono Pharmaceutical, Pfizer Japan, Takeda Pharmaceutical.

Takanori Fujimura: None declared, Shosho Sendo: None declared, Takachi Okano: None declared, Heiseki Yu: None declared, Akihiko Nakabayashi: None declared, Yoshiobu Matsuura: None declared, Takahiro Yoshikawa: None declared, Masao Tamura: None declared, Masayasu Kitano: None declared, Yasuhide Kanayama: None declared.

AB0398

COMPARATIVE SAFETY OF ABATACEPT AND OTHER NON-TUMOR NECROSIS FACTOR INHIBITORS IN RHEUMATOID ARTHRITIS: A SYSTEMATIC LITERATURE REVIEW AND NETWORK META-ANALYSIS

Damamrie Paul1, Benjamin Taylor1, Yuting Kuang2, Mehr Sohail Fazeli3, Bristol-Myers Squibb, Princeton, NJ, United States of America; 2Doctor Evidence LLC, Santa Monica, CA, United States of America

Background: Abatacept has shown equivalent efficacy with other targeted therapies in rheumatoid arthritis (RA) patients, and equivalent or, in some cases, superior safety compared with tumor necrosis factor inhibitors (TNFi). However, there is limited evidence of its safety profile relative to other non-TNFi.

Objectives: To evaluate the class-level safety profile of abatacept compared with other non-TNFi in adults with moderate-to-severe RA in phase 3 and 4 clinical trials.

Methods: A systematic literature review (SLR) of phase 3 and 4 randomized controlled trials (RCTs) of adults with RA was conducted. The non-TNFi included were abatacept, tocilizumab, sarilumab, tofacitinib, baricitinib and rituximab. A search from database inception until February 2018 was performed on MEDLINE® Embase, CENTRAL, and the US and EU clinical trials registries. Conference proceedings from ACR and EULAR from 2015 to end of 2017 were also reviewed. Patients who were cDMARD-naïve or not receiving concomitant cDMARD treatment were excluded from the main analysis. In Bayesian network meta-analysis (NMA) random effects model, drug class-level comparisons were made with respect to the risk of total aggregated adverse events (AEs), serious AEs (SAEs), treatment-related AEs, infection, serious infection, and cancer.

Results: We identified 39 RCTs that met the eligibility criteria for this SLR. The risk of bias was found to be low as assessed by the Cochrane Collaboration’s tool for assessing risk of bias in randomized trials. Eight studies investigated abatacept (T-cell inhibitor), with no head-to-head comparison to other non-TNFi. Other interventions evaluated were...