Background: Primary Sjogren’s syndrome (pSS) is a female predominant autoimmune disease and very few studies have been conducted to address the phenotypic and laboratory differences of the disease between the two genders.

Objectives: To investigate whether gender in pSS interferes with clinical manifestations, serology, disease course and lymphoma development, in the largest cohort of pSS males in Greece.

Methods: From a cohort of 588 consecutive pSS patients who fulfilled the 2016 ACR/EULAR criteria for Sjogren’s syndrome, serology, disease course and lymphoma development, in the largest cohort of pSS males in Greece.

Results: The median age of disease onset was 52 years (range: 15-71 years) for the male group and 50 years (range: 15-73 years) for the females. The median disease duration was 8 years (range: 0-26 years) and 7 years (range: 0-26 years) for males and females respectively. Anti-La/SSB antibodies were found in statistically significant higher frequency in males compared to female patients [21/33 (63.3%) vs 23/66 (34.8%), respectively, p=0.009]. A similar trend was observed regarding anti-Ro/SSA antibodies [26/32 (81%) for males vs 44/64 (68%) for females] and rheumatoid factor [15/26 (69%) for males vs 28/57 (49%) for females], however without reaching statistical significance. Furthermore, males with pSS had less frequently Raynaud’s phenomenon [18/26 (69%) for males vs 28/57 (49%) for females] and rheumatoid arthritis [18/26 (69%) for males vs 28/57 (49%) for females] and rheumatoid arthritis [18/26 (69%) for males vs 28/57 (49%) for females].

Conclusion: The differences in the prevalence of anti-La/SSB antibodies and to a lesser extent of anti-Ro/SSA and rheumatoid factors implies a potential role of gender and hormones in the production of anti-Ro/SSA antibodies and rheumatoid factor.

Background: It has been debated whether treatment outcomes in early RA are crucial to prevent erosive disease.

Methods: Patients were recruited by specialists in rheumatology at hospital clinics and in private practice, and healthy controls were recruited from a website for research subjects. Patients with ankylosing spondylitis, ACPA and no rheumatic disease, and controls without ankylosing spondylitis, ACPA, or rheumatic disease were included. Medical history, ACPA, clinical examination and ultrasound of symptomatic joints were performed in all patients and controls. A 2.7-cm-long volume of interest in the 2nd and 3rd MCP joint of the right hand was HR-pQCT scanned at a spatial resolution of 92 μm at baseline and after one year. Cortical and trabecular bone structure were evaluated in a 12.9-mm-long volume of interest proximal to the MCP head using the provided scanner software. Erosions were defined as cortical breaks in two consecutive slices, in two planes, non-linear in shape, and with loss of underlying trabecular structure. Number, depth, width, and volume of erosions were measured using the OsiriX DICOM viewer. Intra observer agreement for erosions was evaluated with Cohens Kappa and coefficient of variance (CV). Values are median (interquartile range).

Results: Twenty-two patients (aged 53(36-63) years) and 23 controls (aged 42(24-57) years) were evaluated. Ten patients were diagnosed with RA after 86(24-200) days. There was a significant increase in the number of patients with erosions during follow-up in the patient group (4 vs. 10, p=0.031), but not in the control group (1 vs. 4, p=0.083). In addition, at follow-up more erosions per individual were demonstrated in patients compared to controls (p=0.031). The increase in average and total volume of erosions from baseline to follow-up were larger in patients compared with controls (Fig. 1) (p=0.031 and p=0.027). At follow-up average and total volume, depth, width and volume of erosions were larger in patients compared with controls (p between 0.031 and 0.045).

Conclusion: Progression of erosive disease in ACPA positive patients with arthritis using HR-pQCT is reported for the first time. The results highlight that an even earlier diagnosis of RA is crucial to prevent erosive disease.

Disclosure of Interests: Krsten Krarup Keller Speakers bureau: Have received speaking fee from Pfizer, Jesper Skovhus Thomsen: None declared, Kristian Stengaard-Pedersen: None declared, Josephine Therfeldsen: None declared, Andreas Wiggers Nielsen: None declared, Berit Schlattz-Christensen: None declared, Lone Svendsen: None declared, Merete Graakjær: None declared, Lone Svendsen: None declared, Barbara Unger: None declared, Gøren Oktal: Grant/research support from: Pfizer, UCB, Novartis, Merck-Serono, MSD, Novartis, Oktal, Orion Pharma, Pfizer, Roche, Sandoz, Sanofi and UCB, Siri Lillegraven: None declared, Espen Haavardsholm Grant/research support from: Pfizer, UCB, Novartis, Roche, Pfizer, AstraZeneca, Roche, Celgene, Celltrion, Eli Lilly, Hospira, Merck-Serono, MSD, Novartis, Oktal, Orion Pharma, Pfizer, Roche, Sandzol, Sanofi and DMARD regimen.

REFERENCE:

Disclosure of Interests: Ulf Sundin: None declared, Anna-Birgitta Age Consultant for: UCB, AbbVie, and Pfizer, Paid instructor for: UCB, Øivind Skare: None declared, Lena B Norberg: None declared, Till Uhlig Consultant for: Grünenthal, Novartis, Speakers bureau: Grünenthal, Novartis, Hilde Berner Hammer Grant/research support from: AbbVie, Pfizer and Roche, Paid instructor for: AbbVie, Pfizer, UCB, Novartis, Roche, Speakers bureau: AbbVie, Pfizer, UCB, Novartis, Roche, Désirée van der Heijde Consultant for: AbbVie, Amgen, Astellas, AstraZeneca, Bristol-Myers Squibb, Boehringer Ingelheim, Celgene, Daiichi, Eli-Lilly, Galapagos, Gilead, GlaxoSmithKline, Janssen, Merck, Novartis, Pfizer, Regeneron, Roche, Sanofi, Takeda, Union Chimique Belge, Tore K. Kvien Grant/research support from: AbbVie, BMS, MSD, Pfizer, Roche and UCB., Consultant for: AbbVie, Boehringer Ingelheim, Celgene, Celltrion, Eli Lilly, Hospira, Merck-Serono, MSD, Novartis, Oktal, Orion Pharma, Pfizer, Roche, Sandzol, Sanofi and DMARD regimen. None declared, Espen Haavardsholm Grant/research support from: Pfizer, UCB, Roche, MSD, and AbbVie, Consultant for: Pfizer, Paid instructor for: Pfizer, Speakers bureau: Pfizer, UCB, Roche, and AbbVie


OP0134
ULTRASOUND IN THE MANAGEMENT OF EARLY RHEUMATOID ARTHRITIS: MRI OUTCOME DATA FROM THE ARCTIC RANDOMIZED CONTROLLED STRATEGY TRIAL

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Background: It has been debated whether treatment outcomes in early RA would be improved by targeting imaging remission, assessed by ultrasound or MRI, in addition to clinical remission. The primary analyses of the ARCTIC and TaSER trials [1, 2] did not show a beneficial effect of adding structured ultrasound assessment to a treat-to-target tight control strategy. However, both studies reported a trend toward less radiographic progression in the ultrasound arm.

Objectives: We aimed to investigate whether management of early RA by a tight control strategy incorporating ultrasound information in treatment decision-making would lead to improvement in MRI inflammation or less structural damage, compared to a conventional tight control strategy.

Methods: The ARCTIC trial was a 24-month RCT with inclusion criteria age 18-75 years, fulfillment of ACR/EULAR criteria for RA, DMARD-naïvety, < 2 years from first patient reported swollen joint, and indication for DMARD treatment. Patients were randomized to an ultrasound tight control strategy targeting DAS < 1.6, no swollen joints and no power-Doppler signal in any joint, or a conventional strategy targeting DAS < 1.6 and no swollen joints. Patients in both arms were treated by the same treat-to-target drug escalation algorithm starting with MTX, then triple combination therapy MTX/SIS/HCQ, then biologic DMARD. In the ultrasound arm, treatment was stopped up if indicated by the ultrasound score, over-ruling the DAS and swollen joint count. MRI of dominant wrist and hand was performed at 6 times and scored in chronological order by a reader blinded to study arm and clinical data. MRI acquisitions and scoring were done according to the RAMRIS (3) recommendations. Of the 230 patients in ARCTIC, 218 (ultrasound n=116, conventional n=102) had MRI at baseline and ≥ 1 follow-up visit, and were included in the analyses. RAMRIS synovitis, tenosynovitis and bone marrow edema scores were summarized to a combined inflammation score; scores for erosions and joint space narrowing to a combined damage score.

Results: Demographic composition was comparable to the ARCTIC primary sample. There were no statistically significant baseline differences between the arms in either of the combined MRI scores. The mean combined MRI inflammation score decreased during the first year (1-year change in ultrasound arm – 10.8 (95% CI: -12.0 to -9.6), conventional arm – 10.3 (95% CI: -11.5 to -9.0), p=0.56), and maintained at the same level throughout the 2nd year. There were no significant differences in changes from baseline to the study arms at any time (figure 1a). The mean combined MRI damage score showed a small increase over time, without any significant differences between study arms (figure 1b). In the ultrasound arm 45% of patients had MRI erosive progression vs. 39% in the conventional arm (OR: 1.26 (95% CI: 0.73 to 2.16), p=0.40).

Conclusion: A tight control strategy incorporating ultrasound information in treatment decisions did not lead to improved MRI inflammation or less structural damage, compared to a conventional tight control strategy. The findings support the conclusion of the ARCTIC trial that systematic use of ultrasound does not provide added value in the follow-up of patients with early RA treated according to current recommendations.

REFERENCES: