SPARTAN

Spondyloarthritis Research and Treatment Network

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SPARTAN NEWS

Greetings!

Kudos to the annual meeting planning committee for an excellent program and in particular, our host, Judith Smith. This meeting was provocative, engaging, and fun. Please clear your calendar now for next year's meeting on May 14-16, 2020 (a slight change in dates compared to the previously circulated date). We will again be in Madison with excellent scientific sessions and a tentative plan to visit the Madison Museum of Contemporary Arts. Also, it's never too early to identify a trainee interested in presenting at next year's meeting and clear their calendar, too.

This is clearly a time of growth for our organization. Steady progress is being made with the CLASSIC study, as we approach the enrollment of our first patient. Site selection is being finalized and the distribution of site enrollment packets should occur any day now. Physical therapist Shao-Hsien Liu, PT, MPH, PhD was announced as the recipient of a Junior Faculty Seed Grants. We also welcomed our inaugural class of Fellowship/Post-Doctoral pilot project grants, identifying 3 trainees who will receive one year of funding: Akihiro Nakamura, Jean Liew, and Paras Karmacharya. Over this past year, SPARTAN confirmed 1 new full member, 9 new associate members, and 9 trainee members. I would also like to welcome Kristi Kuhn and Matt Stoll to the Board of Directors. While a youth movement is in full swing, we are taking active steps ensure that we put in place mechanisms to ensure the long term health of our organization. This includes ongoing strategic planning, archiving of documents, contingency planning, continuous re-evaluation of our financial standing, and the involvement of senior members of the spondyloarthritis community to ensure institutional memory.

Finally, and with a profound sense of sadness, I must report the passing of one of our rising stars. See below for a notice regarding Mark Asquith. This is a tragedy for the communities that Mark helped bring together and for the spondyloarthritis community. We wish his colleagues, family, and friends strength. It is a reminder that health is an often fleeting commodity and one that we are committed to improving through our involvement in organizations such as SPARTAN. I appreciate your dedication to the cause.

Liron Caplan, MD, PhD
Associate Professor of Medicine/Rheumatology
University of Colorado School of Medicine
Rocky Mountain Regional Veterans Affairs Medical Center

JOURNAL CLUB: CRITICAL REVIEW OF THE LITERATURE

Sacroiliac Joint Ankylosis in Young Spondyloarthritis Patients Receiving Biologic Therapy: Observation of Serial Magnetic Resonance Imaging Scans

Bray TJP, Lopes A, Fisher C, Ciurtin C, Sen D, Hall-Craggs MA.
Arthritis Rheumatol. 2019 Apr;71(4):594-598. doi: 10.1002/art.40750. Epub 2019 Feb 14.

This article published in Arthritis Care and Research by Bray et al, was a retrospective study designed to assess the relationship between biologic therapy and changes in MRI-imaging of the sacroiliac joint. They studied a United Kingdom database of patients with a clinical diagnosis of enthesitis-related arthritis in adolescents aged 12-24 who met the following additional criterium: 3 sacroiliac joint MRIs with ≥1 scan before or during the initiation of TNF inhibitor (TNFi) therapy and ≥2 scans TNFi post-initiation over ≥2 years. The MRIs were done at 1.5 Teslas with a standard 2-reader protocol with readers blinded to treatment and scored on the following outcomes: inflammation (according to the Spondyloarthritis Research Consortium of Canada scoring system,) erosion, fat metaplasia and SI joint fusion. MRI timing was driven by clinical decision making given the retrospective. They then used mixed-effects generalized linear modeling to account for the repeated measures/time intervals and tested for specified a priori interactions among the MRI outcomes.

29 patients were identified by the criteria listed above that were mostly male (23 of 29 patients), mean age of 17 years and mean symptom duration of >5 years. 5 patients underwent TNFi switching (3 due to adverse reactions, 2 due to inefficacy). There was a mean of 4.5 MRI scans per patient studied and the mean time interval was 5.2 years. Their multivariate model showed TNFi therapy was associated with decreased inflammation but no significant association with erosion or fat metaplasia or SI joint fusion. Time was associated with SI joint fusion and no significant association with inflammation, erosion or fat metaplasia were noted. Among the MRI-outcome interactions, only fat metaplasia and inflammation were noted to have a negative association after adjusting for treatment and time.

This authors in their discussion concluded that their study may suggest that TNFi

therapy does not prevent SI joint fusion in early disease. The rich number of repeated measures and analytic plan are strengths of this study, however the lack of information regarding treatment decisions; specifically disease activity, systemic inflammation (e.g. C-reactive protein levels), comorbidities (such as smoking) as well as the retrospective nature of this study (Do patients commonly get yearly MRIs if they have a good therapeutic response?) are significant areas of bias that must be accounted for in the interpretation of this study. They furthermore commented that Si joint observed findings may be true for the rest of the spine which is an indirect comparison. In context in the larger body of literature, this study does not contradict previously literature that suggests that biologic therapy slows down the hyperostosis phenomenon of axial spondyloarthritis but is an important observation that may suggest that inflammation and bony fusion are domains that may need other/separate treatments in the care of axial spondyloarthritis patients.

- Mark Hwang, MD

Weight loss improves disease activity in patients with psoriatic arthritis and obesity: an interventional study.

Klingberg E, Bilberg A, Björkman S, Hedberg M, Jacobsson L, Forsblad-d'Elia H, Carlsten H, Eliasson B, Larsson I.

Arthritis Res Ther. 2019 Jan 11;21(1):17. doi: 10.1186/s13075-019-1810-5.

The relationship between obesity and psoriasis (Ps) as well as psoriatic arthritis (PsA) is established but the cause and effect relationships are far from understood. If indeed it is assumed that obesity comes first, it stands to reason that weight loss should ameliorate both Ps and PsA. Very few good studies have addressed this question in a satisfactory way. An outstanding clinical research unit in Sweden prospectively studied the association between a very low energy diet (VLED), or less than 800kcal/day which is an effective and established weight loss method in Sweden, in severely obese subjects (BMI=>35) with PsA. The VLED used in this study provided 640kcal. After 12 - 16 weeks, food was gradually introduced over the remaining 12-month protocol. Subjects continued their baseline treatment without any alteration from 3 months prior to baseline and throughout the trial. One-third of subjects were taking stable TNFi therapies. Weight loss averaged 1-2 kg/per week. The investigators found significant improvement of joint disease activity, enthesitis, and skin PsA as well as reduction in CRP as well as functional impairments. The primary endpoint, patients with a strict definition of minimal disease activity or MDA, increased from 29% at baseline to 54% at 6 months. PSARC was reached by 46% of patients and ACR 20 was 51% with ACR 50 of 34%. These numbers are equivalent to TNFi trials. Weight reduction correlated in a dose dependent manner with clinical improvement.

What are the mechanisms responsible or what factors mediate these responses? The authors discuss the usual suspects of cytokine mediators, biomechanical stressors at sites of mechanical stress, and behavioral factors. The strength of this study is the powerful intervention that caused a rather large weight loss, greater than achieved in other studies or observed in observational cohorts. As a proof of principle, it seems that weight loss does achieve an effect equivalent to other pharmacologic interventions. But why does this relationship between obesity and PsA or Ps occur? What appears striking is that aggressive clinical trial management of Ps or PsA with TNFi does not, by itself, typically cause weight loss. The cause and effect relationship between weight and PsA or Ps is probably bi-directional and we do not yet have a way

of figuring this out.

- Michael Weisman, MD

MARK ASQUITH, Ph.D. (1983-2019)

The Oregon Health & Science University (OHSU) School of Medicine announces with great sadness that Mark Asquith, Ph.D., research assistant professor, Department of Medicine, Division of Arthritis and Rheumatic Diseases, died June 6, 2019, of a brain aneurysm. He was 36. A private memorial service was held June 9, 2019.

Dr. Asquith was a promising young scientist investigating the microbiome and immune system. He had established research collaborations all over the world and became an admired friend and colleague everywhere he worked or studied. Dr. Asquith earned his B.Sc. from the University of Nottingham, United Kingdom, in 2004, his M.Sc. from the London School of Hygiene and Tropical Medicine, University of London, in 2005, and his Ph.D. from the University of Oxford, School of Pathology, in 2010.

He joined the OHSU faculty in 2013, following a postdoctoral fellowship in the lab of James Rosenbaum, M.D. Dr. Asquith established his lab under the mentorship of Dr. Rosenbaum with a focus on better understanding the role of the microbiome in the development of chronic inflammatory diseases such as ankylosing spondylitis, inflammatory bowel disease and uveitis. His goal was to identify novel diagnostic and therapeutic approaches based on the microbiome for these inflammatory diseases. Dr. Asquith was a recipient of grant awards from the National Institutes of Health (NIH), Collins Medical Trust, The Medical Research Foundation, the Spondylitis Association of America, and the Rheumatology Research Foundation. He was a recipient of the Jane Bruckel New Investigator Award from the Spondylitis Association of America, recognizing him as one of the country's most promising investigators of ankylosing spondylitis.

Dr. Asquith is survived by his family, including his mother Jo and 3 brothers. At the request of his family, the OHSU Foundation has created the Dr. Mark Asquith Fund to honor his work, continue his legacy, and support future research in the field of rheumatology. If you would like to make a donation in his honor, please contact Chelsea Benedict, director of development at the OHSU Foundation, at benedicc@ohsu.edu.

SAA Jane Bruckel Early Career Investigator Award

As part of the ongoing mission to expand horizons in spondyloarthritis research, the Spondylitis Association of America hopes to encourage new, upcoming rheumatologists and researchers to focus on the future of treatment and research in ankylosing spondylitis and related diseases.
The Spondylitis Association of America/Bruckel Early Career Investigator Award, which

recognizes outstanding "contributions to the care and understanding of patients with spondyloarthritis." The award winner receives a $20,000 grant from SAA for use in spondyloarthritis research. The award, named in honor of our co-founder Jane Bruckel, is given annually to the early career investigator who shows the most promise to contribute to the understanding or therapy of axial spondyloarthritis.

Application and details are here
Past awardee information is here

Application deadline August 1

UPCOMING SPONDYLOARTHRITIS EVENTS

GRAPPA Annual Meeting and Trainee Symposium
July 11-13, 2019
Paris

SPARTAN-GRAPPA Symposium
October 5, 2019
Troy, Michigan

ACR
November 8-13, 2019
Atlanta, Georgia

Annual ASAS Workshop
January 17-18, 2020
Houston, Texas

SPARTAN-GRAPPA Symposium
April 4, 2020
Cleveland, Ohio

SPARTAN Annual Education and Research Meeting
May 14-16, 2020
Madison, Wisconsin

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