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FALL 2015

# BRASS Newsletter

## Thank you from the Directors!

We would like to thank all the participants for their continued interest and support of the BRASS Study. BRASS is a monumental success because of our devoted participants who have answered many questionnaires, taken x-rays and contributed blood work over the past 13 years!

BRASS topped the charts this year by enrolling an additional 100 patients into the registry. Overall, 1460 rheumatoid arthritis patients have been enrolled to date. We would like to thank all the rheumatologists from the BWH arthritis center for helping BRASS recruit patients into the study.

We look forward to the continuing advancement of rheumatoid arthritis knowledge because of you. Thank you again for your time and support.

Sincerely,

Nancy A. Shadick, MD, MPH

Michael Weinblatt, MD

Christine Iannaccone, MPH



## Rheumatoid and Psoriatic Arthritis Support Group

**Second Wednesday of every month**

**12:15-1:15PM**

**15 Francis St, Boston, MA**

**Frank K Austen Conference Room (PB-B3)**

Facilitated by Rheumatology Nurses: Pat Green & Fran Griffin

Contact Hannah Tadley for more information (617-525-6608)

Parking is free!

## FREE Parking for BRASS Patients!

If you drive to BWH on the day of your BRASS study visit, just tell us.

**We can validate your parking!**

## Diet and rheumatoid arthritis: a largely unknown relationship

The question of whether diet can affect rheumatoid arthritis (RA) is an old one, without a clear answer. Before tackling this question, it is important to think about multitude of factors that vary from patient to patient: types of RA medications, other medical problems that a person may have, personal preference for certain foods, smoking habits, and other factors that can affect either RA symptoms or diet.

We are excited to be planning two studies of the relationship between diet and RA, involving the BRASS cohort. We are starting with a survey about what RA patients think about the relationship between diet and their RA symptoms. The information that we learn from the survey will be very important in figuring out if and what RA patients are doing to change their diets in order to improve their symptoms.

With that knowledge obtained from the survey, we then plan to ask BRASS participants to tell us what they eat on a regular basis on a questionnaire. We will link that information to the annual BRASS study visit and mailed questionnaires, to see if there is a relationship between certain foods and RA symptoms. Because BRASS already collects very detailed information about medications, smoking, and other illnesses, we can also incorporate that information to take a close look at the possible relationships.



## Using fibromyalgia-like symptoms to predict changes in functional status of RA patients

The frequency of fibromyalgia (a disease that affects the muscles and includes chronic muscle pain, fatigue, sleep problems) is 13-20% in RA patients, compared to 2-3% in the general population. Previous studies have shown that RA patients with fibromyalgia have higher RA disease activity, greater medical cost, more medical problems and worse quality of life. In Brass, we looked at the effect of widespread non-joint pain, measured by a fibromyalgia survey score, on a patient's functional status.

209 Brass participants were enrolled in a two year study examining widespread, non-joint pain. Participants completed a set of questionnaires every six months and a physical exam and blood work. The goal of the project was to assess change in functional status (assessed by the questionnaire) over a period of two years.

156 participants were included in the final analysis for the study. The analysis showed that higher fibromyalgia survey scores were significantly associated with greater decline in functional status of RA patients. Additional analyses did not change the strength of the association between fibromyalgia survey score and change in functional status.

The fibromyalgia survey score is a good predictor of a decline in functional status in RA patients. This data highlights the importance of identifying fibromyalgia-like features among individuals with RA. Additional research is needed to determine if treating fibromyalgia-like symptoms can reduce functional status decline among patients with established RA.

## What Does a Flare Mean to you?

Patients with RA experience frequent flares of their disease even when their disease activity appears to be under control. There has been little research on what actually makes up a flare and how to treat one. Dr. Nancy Shadick, principal investigator of the Brass registry, hypothesizes that flares are frequent in RA, and that steroids are the most commonly used medication for flare management, and has developed a new questionnaire that aims to address these questions.



Preliminary analyses of pilot data from Brass demonstrate that flares are reported more often in patients with higher disease activity, however, even patients considered to be in remission reported flares. Also, medication was the most frequently reported self-management approach, however a similar proportion of patients used alternate therapies, such as resting, physical therapy, or no treatment at all. The type of medication used to treat a flare depended on the length of the flare. 57% of patients with a flare lasting less than a week used prednisone and NSAIDs (ex. Ibuprofen), but patients reporting a flare lasting 2 weeks or more tended to use DMARDS (ex. Methotrexate, Plaquenil) and biologic therapies (ex. Enbrel, Orencia, Cimzia).

In an effort to gather more detailed information, our research assistants will assist Brass participants in answering this questionnaire during their annual study visits. Also, the new flare questionnaire will be mailed along with the 6 month questionnaires.

## Social Networks and Rheumatoid Arthritis

Current research suggests that RA patients with larger social networks (level of social connectedness with one's family, friends and community) report lower levels of pain. The nature of this relationship is not well known but may be related to disease activity. Brass researcher, Taysir Mahmoud, decided to examine the relationship between social networks, reported pain, and disease activity using data collected from the Brass registry.

Patients completed a questionnaire called the Social Network Index during an annual study visit. At the same visit data was obtained about disease activity and pain. We analyzed the data in a certain way to examine the association between social networks, reported pain, and disease activity taking into account the age and gender of the patients in the study. 1053 patients data were included in the analysis. The average age was 58 years old and average disease duration was 14 years. The final analysis showed that a larger social network was significantly associated with patients reporting less pain.

It is unclear if having a large social network has psychosocial benefits that lead to reduced pain or if low pain promotes patients social participation causing a larger social network. Future studies are needed to further look at the relationship between social support and reported pain, and see if this association is present over long periods of time.

**If you have any questions or concerns about the research in this newsletter, please feel free to contact us at 617-732-5083.**

## Newest BRASS Research

The American College of Rheumatology conference for 2015 will be held in San Francisco, CA this November. BRASS investigators and sponsors submitted multiple scientific abstracts that were accepted for presentation at this national platform for rheumatology research. Please see the notable list on the right and visit [www.brasstudy.org](http://www.brasstudy.org) for links to our most recent publications.



## ACR/ARHP 2015 Accepted Abstracts

1. Evaluation of the Impact of Disease-Modifying Antirheumatic Drugs on the Levels of Anti-cyclic Citrullinated Peptide Autoantibody Levels in Clinical Practice. *Alemao E et al.*
2. Characteristics of Fibromyalgia Predict Two-Year Changes in Functional Status in Rheumatoid Arthritis Patients. *Kim H et al.*
3. The Association Between HDL cholesterol efflux capacity, Citrullinated ApoA1 and Anti-citrullinated protein antibodies in RA. *Liao K et al.*
4. Different Wording of the Patient Global Leads to Different Rating of Disease Activity. *Radner H et al.*
5. The Association between Social Networks, Disease Activity, and Pain in Rheumatoid Arthritis. *Mahmoud T et al.*
6. Baseline Characteristics and Changes in Disease Activity at 12 months in Patients Treated with Abatacept Versus Biologic Disease-Modifying Antirheumatic Drugs in Clinical Practice Setting. *Alemao E et al.*
7. Evaluation of Anti-Cyclic Citrullinated Peptide Autoantibody Levels in Clinical Practice and Its Association with Disease Activity. *Alemao E et al.*
8. Different Perception of Disease Activity in Multimorbid Rheumatoid Arthritis Patients. *Radner H et al.*



Please visit [www.brasstudy.org](http://www.brasstudy.org)