Addressing Persistent Depressive Symptoms in Rheumatoid Arthritis Patients with Controlled Disease

Gilles Boire[1,2], Patricia L Dobkin[3], Isabelle Gaboury[4], France Gervais[5], Marie-Claude Beaulieu[4], Pierre Dagenais[1,2], Pasquale Roberge[4], Sophie Roux[1,2]

[1]Centre intégré universitaire de santé et de services sociaux de l'Estrie - Centre hospitalier universitaire de Sherbrooke (CIUSSS de l'Estrie-CHUS), Sherbrooke;
[2]Rheumatology Division, Faculty of Medicine, Université de Sherbrooke, Sherbrooke; [3] Department of Medicine, Programs in Whole Person Care, McGill University, Montréal;
[4]Department of Family Medicine, Université de Sherbrooke, Sherbrooke; [5]Centre de rhumatologie de l'Est du Québec, Rimouski.

BACKGROUND

- The most frequent reason for not reaching remission of Rheumatoid Arthritis (RA) remains the Patient Global Disease Activity (PGA) score
- A third of RA patients are reported to be in Quasi-Remission (all components of ACR Boolean remission ≤1 except PGA)
- PGA strongly correlates with pain, fatigue, functional limitations, anxiety and depressive symptoms
- Mindfulness-Based Stress Reduction (MBSR), a program that incorporates mindfulness to assist people with a range of chronic conditions, may be effective to address several of RA patients' symptoms

OBJECTIVE

To evaluate the impact of MBSR on depressive symptoms, pain, fatigue, PGA and disease activity in RA patients with controlled clinical inflammation

METHODS

Proposed recruitment strategy:

- Assessment of RA patients (from a pool of ≈2500) during regular follow up for both controlled disease (≤2 SJC under stable treatment) and symptoms suggestive of depression (Center for Evaluation Studies-Depression (CES-D) ≥16)
- Proposition to participate to a group MBSR session (8 weekly meetings plus an additional day session)
- Randomization of consenting patients to control (standard care) or MBSR groups. At 6 months, patients in the control group are offered the MBSR intervention
- Collection of questionnaires (pain, fatigue, function, coping, anxiety, depression), Simple Disease Activity Index (SDAI), and serum and saliva samples at baseline and at 6 months
- Qualitative analysis of hurdles and facilitators of patient participation at the end of each MBSR session
- Follow-up post-MBSR planned every 6 months up to 24 months

Due to the complex recruitment strategy proposed, a pilot was first run from September to December 2017

DR. FRANÇOISE GENDRON MD IS OUR MBSR INSTRUCTOR

RESULTS

- Over a period of 8 weeks, 225 RA patients seen during regular follow ups accepted to complete CES-D questionnaires
  - 79 (35%) had CES-D ≥ 16, of which 47 accepted to be contacted
- MBSR was proposed to 13 patients, of which 8 accepted to participate
  - 7/8 completed the pilot non-randomized MBSR session
- Reasons why MBSR was not offered to some patients:
  - Living too far from Sherbrooke (n=14)
  - Active disease (n=10)
  - Very old (n=3)
  - CES-D<16 at the following visit (n=1)
  - Not RA (n=1)
  - Reason not defined (n=5)

Table 1. Baseline Characteristics of 8 Patients in the pilot

	Values
Age, mean (range)	62.4 (42.3-78.1)
Women, n/Total	7/8
CES-D score (0-60), mean (SD)	24.5 (9.0)
Patient Global assessment (PGA), (0-10 cm)	3.2 (1-4.6)
Evaluator Global assessment (EGA), (0-10 cm)	0.4 (0.1-0.5)
CRP, mg/L, median (IQR)	1.3 (1.0-3.5)
SJC66, median (IQR)	0 (0-0)
M-HAQ, median (IQR)	1.0 (0.4-1.4)
SDAI, median (IQR)	6.6 (2.6-10.6)
SDAI remission or low, n (%)	6 (75.0)
CCP and/or RF positive, n (%)	6 (75.0)
Depression (Beck), median (IQR)	18.0 (6.5-28.3)
Anxiety (GAD7), median (IQR)	8.5 (4.3-14.5)
Energy/fatigue (SF36), median (IQR)	40 (30-55)
Pain (SF36), median (IQR)	45 (45-57.5)

HURDLES TO PATIENT RECRUITMENT

1. **Rheumatologists**: Depression seen as an additional problem to manage; Felt they lacked alternatives if severe depression was apparent

   THUS CES-D screening not offered or filled CES-D forms not returned to research assistants
2. **Patients**: Stigma associated with depression is a barrier to recruitment. Too much emphasis on its use as an Inclusion criterion and as the Primary Objective
3. **Patients**: Intensity of the required investment; the time (early evening); the location (downtown; a long drive for some); the setting (climbing stairs required); the group (some patients preferred one-on-one interventions)

Table 2. Correlation with CES-D

	R	p-value
Patient Global assessment (0-10 cm)	0.443	0.272
Evaluator Global assessment (0-10 cm)	0.593	0.121
Anxiety (GAD7), median (IQR)	0.719	0.045
Pain [1]	-0.679	0.044
Energy/fatigue [1]	-0.849	0.004

[1] In SF36, more pain and fatigue give a lower score; this explains the negative sign of the correlation

SOME PATIENT EVALUATIONS/OPINIONS AFTER MBSR MEETINGS

- *'Usually, at this time of the year, I am on sick leave. Now I am not, and I feel calmer'*
- *'Concentrating on my body and my breathing just help relaxing and going to sleep'*
- *'It's difficult to practice meditation when you feel so much pain'*
- *'I was so much focused on the disease. Now I see there are other things in life, other things in me'*
- *'My physical therapist told me that my shoulders are more relaxed and that I breathe deeper.'*
- *'I feel I am back on earth, more grounded.'*

CONCLUSIONS

1. The need for an intervention to address persistent symptoms in RA patients with controlled inflammatory disease is real
   - More than 20% of our controlled RA patients express depressive symptoms
   - Similar to our previous report of 23% in Early Undifferentiated PolyArthritis (EUPA)
2. Putting depression as the inclusion criterion and improvement of depression as the primary objective of MBSR does not appeal to many rheumatologists and to many patients
   - A screening alternative may be using the difference between the Patient's and the Physician's evaluation of RA disease activity
3. Our experience suggests that putting more emphasis on pain, fatigue, anxiety and quality of life may be more appealing to patients and will improve recruitment
   - To be validated by the results of the ongoing qualitative analysis
4. We will modify accordingly the recruitment strategy for the next randomized MBSR group, planned April 2018

Supported by a CIORA grant