

Identifying physical and social function trajectories during the first 6 months of rheumatoid arthritis using PROMIS symptom clusters
Results from the Canadian Early Arthritis Cohort



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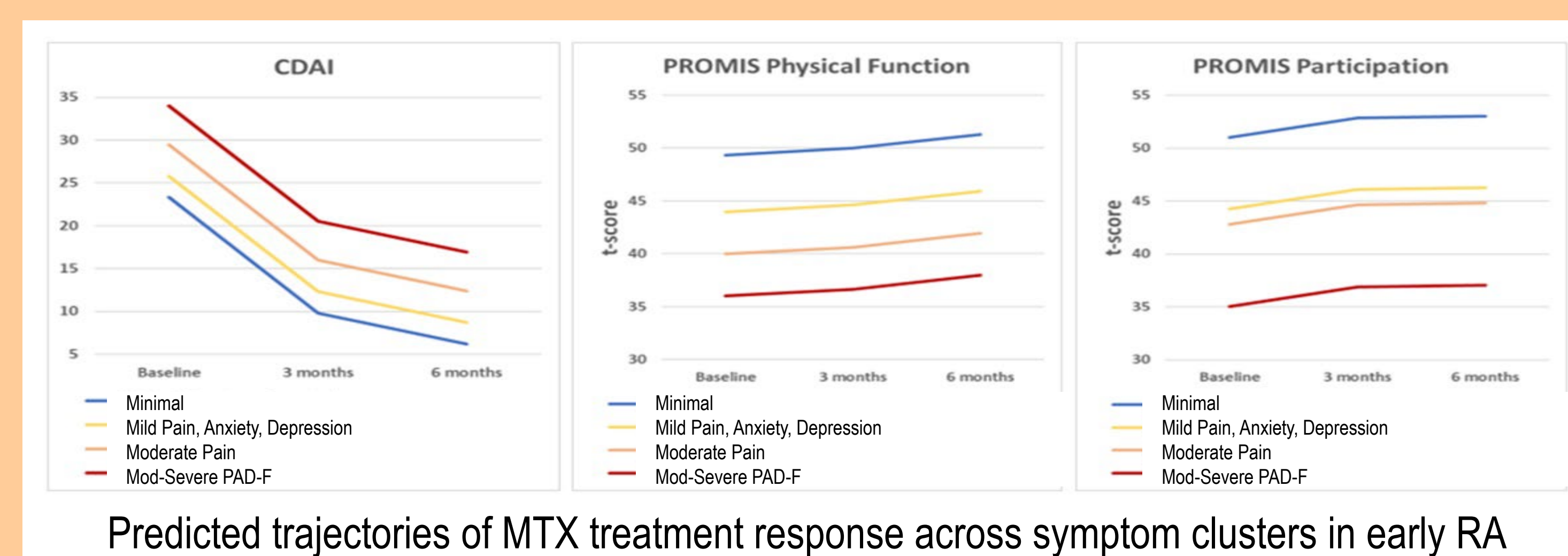
Background & Objective

- Rheumatoid arthritis (RA) is characterized by multiple symptoms impacting HRQL
Symptom clusters, the co-occurrence of 2+ symptoms that are stable and independent of other clusters, may share underlying mechanisms and contribute to different disease outcomes, particularly if symptoms are under-identified and undertreated
We previously used PROMIS profiles to group adults newly diagnosed with RA based on pain, fatigue, depression, and anxiety scores. Here, we examined the relationship of symptom clusters to physical and social function over the first 6 months

Methods

- Sample: 310 adults with early RA (symptoms <1 year) enrolled in the Canadian Early Arthritis Cohort (CATCH) who were starting treatment with MTX and had complete clinical and PRO data at baseline, 3- and 6-months
PROMIS pain, anxiety, depression, and fatigue scores were used to classify patients into 4 groups using latent profile analysis:
Group 1: MINIMAL SYMPTOMS (PHYSICAL);
Group 2: MILD PHYSICAL + EMOTIONAL SYMPTOMS;
GROUP 3: MODERATE PAIN; and
Group 4: MODERATE PHYSICAL + EMOTIONAL SYMPTOMS
Multivariable mixed effects regression was used to estimate trajectories of CDAI, physical function, and social participation over the first 6 months across groups adjusting for age, sex, race, education, smoking, obesity, comorbidities, seropositivity, symptom duration, and RA treatment

Early identification of co-occurring pain, anxiety, depression and fatigue (PADF) may help identify individuals at-risk for poorer MTX response



Characteristics of Participants by Symptom Clusters

Table with 6 columns: Mean (SD) or N (%), Minimal Symptoms Reported, Mild Pain, Dep & Anx, Moderate Pain, Mod-Severe Pain, Fat, Dep & Anx, SIG. Rows include Age, Women, TJC-28 mdn (IQR), SJC-28 mdn (IQR), MD Global, Patient Global, Stiffness (0-10), CDAI, MTX Monotherapy, MTX+csDMARDs, Parenteral steroids, PROMIS-29 (Pain Interference, Fatigue, Depression, Anxiety, Physical Function, Participation).

No significant differences by group in % white, education, smoking, obesity, number of comorbidities, symptom duration, MtX dose or oral steroid use

Results

- 310 participants had a mean age of 56, CDAI of 29.3, and symptom duration of 5 months; 67% were women and 78% were White
At diagnosis, all groups had high RA disease activity but symptom experience varied. Patient with the worse symptoms were significantly younger, more often had a history of depression, had the highest disease activity (CDAI) scores, patient global, and stiffness scores, and greater impairments in physical function and participation (Table)
All started similar first-line treatments (type and dose)
Over the first 6 months, in adjusted models, RA was better controlled in all groups, but worse symptom severity at diagnosis, and notably anxiety and depression, was associated with worse physical function and social participation

Conclusions

- The presence of co-occurring symptoms at diagnosis may indicate patients at risk for a poorer prognosis. Anxiety and depression may confer additional risk.
Even as RA improves with treatment, pain, fatigue --and especially anxiety and depression--may make it harder for individuals to engage in daily activities, maintain relationships, and fulfill social and work responsibilities
Results suggest these individuals may benefit from more aggressive pharmacologic and psychosocial interventions at diagnosis to help preserve autonomy, workforce participation, and QOL
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