Risk Factors for Development and Persistence of Chronic Widespread Pain, in Ankylosing Spondylitis and Undifferentiated Spondyloarthritis

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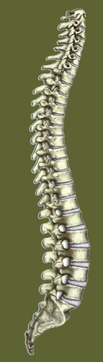
Conclusion:
The total prevalence of CWP did not change over the study-period, although a substantial transition between the paingroups were found.

More pain regions, higher pain intensity, fatigue and worse self-reported health predicted the development into CWP, and persistent CWP.

Also, higher age and female sex were risk factors for persistent CWP in SpA.

Special attention in patients who report increased pain and related symtoms is essential, to early identify the development of CWP in patients with SpA.



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Background:

Chronic back pain is a prominent symptom in Spondyloarthritis (SpA), and an important contributor to diminished quality of life[1,2]. Chronic pain can develop in intensity, become more spread, and progress to chronic widespread pain (CWP)[3]. Mechanisms for this are yet inconsistent[4], and in SpA, knowledge of progression to CWP is lacking.

Objectives:

To study the development of CWP in patients with SpA, and to identify risk factors for development and persistence of CWP.

Methods:

A cohort study with baseline and 2.5-year follow-up postal surveys. 644 patients (47% women) with ankylosing spondylitis (AS) and undifferentiated spondyloarthritis (USpA) answered both surveys, and were categorized as no chronic pain (NCP), chronic regional pain (CRP), and CWP.

Logistic regression analyses, with CWP as the main outcome were performed. Due to multicollinearity, each risk factor candidate (disease duration, BMI, smoking, and different patient-reported outcome measures) were analysed in separate logistic regression models together with a base model (age, sex, and SpA-subgroup).

References:
1. Dougados M et al. The European Spondyloarthropathy Study Group preliminary criteria for the classification of spondyloarthropathy. Arthritis Rheum 1991;34:1218-27
2. Kiltz U et al. Do patients with non-radiographic axial spondyloarthrits differ from patients with ankylosing spondylitis? Arthritis Care Res (Hoboken) 2012;64:1415-22
3. Bergman S et al. Chronic widespread pain: a three year followup of pain distribution and risk factors J Rheumatol 2002;29:818-825
4. Larsson B et al. A systematic review of risk factors associated with transitioning from regional musculoskeletal pain to chronic widespread pain. Eur J Pain 2012;16:1084-1093

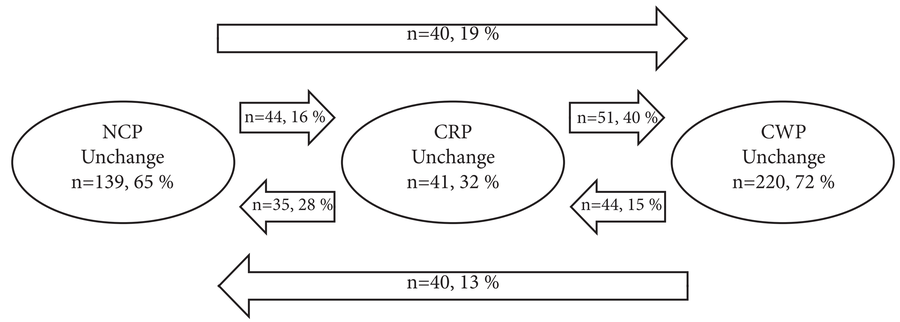
Results:

At follow-up, prevalence estimates for NCP, CRP and CWP were similar to those at baseline, but 38 % of the patients had transitioned between the groups.

Risk factors (OR and 95 % CI) for development of CWP from initial NCP/ CRP were more pain regions (1.36; 1.20-1.53), higher pain intensity (1.35; 1.20-1.52), worse fatigue (1.25; 1.13-1.38), worse global health (1.35; 1.19-1.54), worse health status (0.05; 0.01 – 0.19), higher disease activity (1.25; 1.07 – 1.45), worse function (1.32; 1.16 – 1.50), lower self-efficacy for handling pain (0.97; 0.96 – 0.99), and for handling symptoms (0.98; 0.97 – 0.99), and worse depression scores (1.10; 1.02 – 1.19),

72 % of the patients with initial CWP, also reported persistent CWP at followup .

Risk factors (OR and 95 % CI) for persistent CWP, compared to patients transitioning to NCP or CRP, were similar to those predicting development of CWP, but in addition, also higher age (1.02; 1.00-1.04), and female sex (1.82; 1.06-3.10), predicted the outcome.



Figur 1. Transition of patients to and from the pain groups (NCP, CRP, CWP) between 2009 and 2011.

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