mean= 6.3 +/- 1.8 pg/ml, p=0.25). After TNFα stimulation, protein level of NT3 was significantly higher in CRPS skin fibroblasts (CRPS mean= 10.6 +/- 2.4 pg/ml, HC mean= 4.6 +/- 1.3 pg/ml, p=0.004).

Conclusion: These data indicate a new role of skin fibroblasts in CRPS. Differential basal and stimulated expression of NT3, the receptor for TNF (Trc) and NGFR, the common receptor for all neurotrophins, indicates deregulated communication of fibroblasts with the sensory nerve fibers in CRPS. This might contribute to the dysregulated healing process and sustained pain.


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CF0086

GENDER INFLUENCE ON CLINICAL MANIFESTATIONS, DEPRESSIVE SYMPTOMS AND BRAIN-DERIVED NEUROTROPIC FACTOR (BDNF) SERUM LEVELS IN PATIENTS AFFECTED BY FIBROMYALGIA

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Background: Fibromyalgia (FM) is a common rheumatic disease characterized by chronic widespread pain, sleep and mood disorders. A higher prevalence of FM in women compared with men is well known, although the specific differences in clinical manifestations related to gender are still poorly defined. Brain-Derived Neurotrophic Factor (BDNF) is an endogenous growth factor that gained attention for its potential as biomarker of several diseases, including FM and depression.

Objectives: The aims of this study were to investigate gender-related differences in inflammatory, clinical, and pain-related outcomes in FM patients and to evaluate the diagnostic potential of BDNF.

Methods: We consecutively enrolled adult patients affected by FM (ACR 2016) referring to our out-patient clinic. Each subject underwent clinical and answered to questionnaires for the severity of FM symptoms (Revised Fibromyalgia Impact Questionnaire, R-FIQ) and depressive symptoms (Beck Depression Inventory-II, BDI-II). We collected blood samples from a subgroup of patients of both sexes, matched for age, for BDNF serum level dosage through ELISA. BDNF levels were assessed also in a control group, matched for sex and age.

Results: The cohort was composed by 201 FM patients (172 F, 29 M), mean age 49.13. Females showed higher values of R-FIQ total score (p=0.0005) as well as the specific items of the R-FIQ for pain (p=0.013), fatigue (p=0.014), memory problems (p=0.007), tenderness to touch (p<0.0001), balance problems (p<0.0001) and sensitivity to environmental stimuli (p=0.012) when compared with males (fig. 1). There was no difference in BDI-II between males and females, but notably male patients reported a significantly higher frequency of coexisting depressive disorder (p=0.038) (fig. 2). Serum BDNF levels were evaluated in 40 FM patients and 40 healthy controls (HC) (F:M 1:1). BDNF levels were significantly lower in FM patients compared with HC (p<0.0001). Among FM patients, BDNF levels were lower in males compared with females (p<0.0001) (fig. 3). BDNF did not correlate with any clinical and clinimetric parameter. BDNF showed a good diagnostic performance (AUC=0.89, CI95%=0.82-0.9630, p<0.0001) (fig. 4). At a cut-off value =6.47 ng/dl, BDNF showed a specificity of 75% and a sensitivity of 92.31%, (CI 95%=79.68-97.35) for FM identification (LR=3.692).

Conclusion: FM clinical manifestations are strongly dependent from gender. While females present a more severe disease and a higher burden of symptoms, mood disorders tend to be a major characteristic of males with FM. Reduced BDNF serum levels have been reported as typical of depressive disorders. Our findings of lower BDNF levels in male FM patients compared with females support this hypothesis. BDNF have potential as biomarker of the disease and should be validated in larger cohorts.

REFERENCES:
comorbidity other than OA. Mean (SD) comorbidity index value was 7.73 (4.25). Higher values were statistically significantly associated with greater pain severity by each pain questionnaire, lower PPT trapezium (borderline significant for PPT tibialis anterior), and greater TS (Table). Similar results were found for subscales. Depression, back pain and hypersensitivity associated with most measures of pain. The lack of relation between individual comorbidities and pain sensitization (Table).

Conclusion: Higher burden of comorbidities was associated with greater pain intensity and central pain sensitization. Hypersensitivity, back pain and depression were associated with most measures of pain severity. The lack of relation between individual comorbidities and pain sensitization suggest the burden of comorbidity is more important.

Disclosure of Interests: Elisabeth Murloen: None declared, Tuhina Neo: None declared, Hanne Solveig Dagfinrud: None declared, Hilde Berner Hammer Speakers bureau: Speaker fee from Novartis, Lilly and Abb- Vie, Per nille Steen Pettersen: None declared, Torefinn Lodeen Gaarder: None declared, Knut Engedal: None declared, Tore K. Kvien Speakers bureau: Berner Hammer Speakers bureau: Speaker fee from Novartis, Lilly and Abb- more important.

Conclusion: This is the first longitudinal study that addresses the bidirectional relationship between fibromyalgia and periodontitis, in which periodontitis may serve as a risk factor or early sign of fibromyalgia. Based on the observed relationship between fibromyalgia and periodontitis, regular follow-ups and patient education are recommended for patients with either disease.

Disclosure of Interests: None declared

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OP0089

DO PAIN CATASTROPHIZING REDUCE THE LIKELIHOOD OF REMISSION IN PATIENTS WITH CHRONIC INFLAMMATORY JOINT DISORDERS?

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Background: Rheumatoid arthritis (RA), psoriatic arthritis (PsA) and axial spondyloarthritis (axSpA) may have a devastating impact on patients’ lives, including chronic and relapsing pain. One factor contributing to bio-psycho-social model of pain in these diseases, is pain catastrophizing (PC) defined as tendency to report pain experience in exaggerated terms, to ruminate more or to feel helpless about it. In one RA study PC has been shown to be associated with patient reported outcomes e.g. reduced likelihood of remission using composite measures. [1]

Objectives: Main objective of this study was to explore if pain catastrophizing score is associated with remission rates in the chronic inflammatory joint disorders RA, PsA and axSpA.

Methods: Patients were recruited during routine assessment at an outpatient clinic in Norway. Variables collected included demographics, treatment, disease duration, global pain VAS, pain catastrophizing score (PCS), and disease activity scores: DAS28-ESR for RA, BASDAI for axSpA and DAPSA for PsA. Cut off definitions of remission was for DAS28 <2.6, for BASDAI <4.0 and for DAPSA ≤4.0. Two questions from Coping Strategies Questionnaire as recommended by Jensen et al [2] were used to describe PC, range PC total score (PCS) 0–6. Patients with PCS ≥ 4 were defined as high pain catastrophizers. Statistics included Chi-Square test and adjusted logistic regression (enter procedure).

Results: For RA (N=580), PsA (N=394) and axSpA (N=225) mean age (SD) was 61.5 (13.1), 54.4 (12.9) and 47.5 (12.9) years, mean disease duration 12.6 (10.9), 10.2 (8.4) and 12.2 (10.7) years and percentage of women 66.7%, 70% and 38.4%. Mean (SD) DAS28-ESR in RA was 2.3 (1.0), BASDAI for axSpA 3.7 (2.3) and DAPSA for PsA 10.8 (8.5). Mean (SD) global pain (VAS 0-10) was for RA 32.0 (25.6), for PsA 35.5 (25.4) and for axSpA 39.4 (25.4) mm.


Table.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Depression</th>
<th>Back pain</th>
<th>Hypertension</th>
<th>Painful joints</th>
<th>PPT Trapezium</th>
<th>PPT Tibialis Anterior</th>
<th>TS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OA</td>
<td>0.26 (0.23, 0.29)</td>
<td>0.40 (0.36, 0.44)</td>
<td>0.60 (0.56, 0.64)</td>
<td>0.68 (0.64, 0.72)</td>
<td>0.58 (0.54, 0.62)</td>
<td>0.56 (0.52, 0.60)</td>
<td>0.26 (0.20, 0.32)</td>
</tr>
<tr>
<td>RA</td>
<td>0.38 (0.35, 0.42)</td>
<td>0.52 (0.48, 0.56)</td>
<td>0.72 (0.68, 0.76)</td>
<td>0.80 (0.76, 0.84)</td>
<td>0.70 (0.66, 0.74)</td>
<td>0.68 (0.64, 0.72)</td>
<td>0.36 (0.30, 0.42)</td>
</tr>
<tr>
<td>PsA</td>
<td>0.42 (0.39, 0.45)</td>
<td>0.55 (0.51, 0.59)</td>
<td>0.75 (0.71, 0.79)</td>
<td>0.83 (0.80, 0.86)</td>
<td>0.73 (0.69, 0.77)</td>
<td>0.71 (0.67, 0.75)</td>
<td>0.40 (0.34, 0.46)</td>
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