

Conclusions: This study shows good efficacy and short term safety of RTX for systemic features. This study demonstrates that in real life, clinicians mostly use RTX off-label in pSS patients with systemic involvement. This large prospective study suggests the efficacy of RTX in systemic complications of pSS with a corticosteroid sparing effect. These results have to be confirmed by controlled studies.

Disclosure of Interest: None Declared

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Abstract Session: Regional pain and fibromyalgia: understanding mechanisms and effective management

OP0067 CLUSTER ANALYSIS OF CLINICAL DATA IDENTIFIES FIBROMYALGIA SUBGROUPS

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Background: Fibromyalgia (FM) is characterized by widespread pain and other symptoms, such as psychiatric and physical comorbidities. The heterogeneity of FM hinders its assessment and management.

Objectives: The aim of this work is to identify FM subgroups by classifying clinical data into simplified dimensions.

Methods: 44 variables were evaluated in 560 unrelated Spanish FM cases of Caucasian origin. All participants fulfilled 1990 ACR FM criteria and were evaluated at one of five Rheumatology Units. A partitioning analysis was performed to find groups of variables similar to each other, thus describing underlying FM dimensions. Given the mixed nature type of the variables, these were transformed into binary types (0=mild; 1=severe), and a generalization of the Gower method was applied to find similarities between variables. A score was constructed per sample and dimension based on the weights of the variables depicting the specific dimension. Kmeans clustering procedure was then applied into resulting scores to create FM subgroups. This analysis was also performed in a replication set of 950 cases.

Results: Variables clustered into three independent dimensions: pain and other symptoms, family and personal comorbidities and clinical scales (fig. 1). Only the two most reliable dimensions (pain and other symptoms and comorbidities) were considered for FM subgroups construction. Resulting scores classified FM samples into three subgroups: high symptomatology and comorbidities, high symptomatology but low comorbidities and low symptomatology and comorbidities. Both the variable clustering and the sample subgrouping were replicated in the second cohort.

○ Pain and Other symptoms

Widespread Pain; Muscle weakness; Post exercise fatigue; Morning stiffness; Muscular contractures; Concentration problems; Illness complaints; Sleep disturbance; Migratory joint pain; Headache; Pain subtle movements; Intestinal dysfunction; Visual accommodation impairment; Trigger; Dizziness; Pain Duration; Personal history of chronic pain; Palpitations; SF-36 physical subscale; Age of onset of illness

△ Family and personal comorbidities

Family history of autoimmune disorders; Family history of chronic fatigue; Family history chronic pain; Family history of Fibromyalgia; Previous personal history of psychopathology; Posttraumatic stress disorder; Personality disorders; Panic attacks; Adjustment Disorders; Major depression; Connective disorder; Spine osteoarthritis; Impaired urination

+ Scales

HAD depression subscale; HAD anxiety subscale; Fibromyalgia Impact Questionnaire (FIQ); Multidimensional Fatigue Inventory; Pittsburg Sleep Quality Index (PSQI); Fatigue level (VAS 1-10 cm); Pain level (VAS 1-10 cm); Life Quality (SF-36); Number of Tender Points

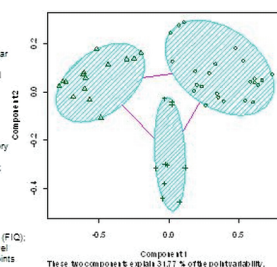


Figure 1. Clustering of variables. The variables included in each dimension are listed and sorted by their weighted contribution.

Conclusions: We have identified three subgroups of FM samples in a large cohort of FM by clustering clinical data. This partitioning method could be used as a useful tool in FM severity assessment and personalized treatment.

Disclosure of Interest: None Declared

OP0068 MEDIATION OF CHILDHOOD/ADOLESCENCE MALTREATMENT AND ADULT FIBROMYALGIA SYNDROME BY DEPRESSION – A CASE CONTROL STUDY

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Background: Systematic reviews of case-control studies demonstrated an

association between self-reported sexual and physical abuse in childhood/adolescence and FMS in adulthood (1,2). However, the case-control studies reviewed did not analyse if the association of self-reported maltreatments in childhood/adolescence and adulthood FMS was mediated by depression. Depressive mood could induce a negative recall bias of childhood (3).

Objectives: We tested if the association of self-reported maltreatments in childhood/adolescence and FMS in adulthood is mediated by depression in a case-control study.

Methods: All consecutive patients diagnosed with FMS (either by ACR 1990 or modified ACR 2010 criteria) of one secondary care pain medicine centre and one tertiary care psychosomatic medicine centre from January to June 2011 were included into the study. Randomly selected age- and sex-matched controls from a representative survey of the general German population were used for controls. Childhood/adolescence maltreatments were assessed by the validated German version of the Childhood Trauma Questionnaire CTQ, depression by the two-item depression scale of the validated German version of the Patient Health Questionnaire PHQ 4. The scores of the five CTQ- subscales were compared between FMS-patients and controls using analysis of covariance adjusting for depression. Group was specified as a fixed between-subject factor. Effect sizes for ANCOVA were expressed as partial eta² which were interpreted as a small effect size ≥ 0.01 , a medium effect size ≥ 0.06 and as a large effect size when ≥ 0.13 .

Results: 153 FMS-patients (87.6% women; mean age 50.3 years, SD 9.6 years) with a mean duration of chronic widespread pain of 10.6 (SD 8.9) years and 153 age- and sex matched participants of the general population were included into the study. The ANCOVA demonstrated a significant group difference with large effect size (partial eta²=0.21, $p < 0.001$) for emotional abuse, with medium effect size (partial eta²=0.12, $p < 0.001$) for physical abuse, with medium effect size (partial eta²=0.07, $p < 0.001$) for sexual abuse, with medium effect size (partial eta²=0.09, $p < 0.001$) for emotional neglect and medium effect size (partial eta²=0.09, $p < 0.001$) for physical neglect. The group differences were partially attributable to depression with a small effect size (partial eta²=0.05, $p < 0.001$) for emotional abuse, with small effect size (partial eta²=0.03, $p < 0.001$) for physical abuse, with medium size (partial eta²=0.07, $p < 0.001$) for emotional neglect and medium effect size (partial eta²=0.06, $p < 0.001$) for physical neglect. There was no significant effect size of depression on group differences in sexual abuse (partial eta²=0.009, $p=0.10$).

Conclusions: FMS-patients reported more severe childhood/adolescence maltreatments than age- and sex-matched persons of the general population. The association between self-reported childhood/adolescence maltreatments and diagnosis of adult FMS was only partially mediated by depression. Childhood/adolescence maltreatments can be regarded as risk factors of adulthood FMS.

References:

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- [3] Kosseva M. Schmerz 2010;24(5):474-84, in German.

Disclosure of Interest: None Declared

OP0069-HPR THE INFLUENCE OF WEATHER ON DAILY PAIN AND FATIGUE IN FEMALE PATIENTS WITH FIBROMYALGIA

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Background: Patients with fibromyalgia often report that the weather aggravates their symptoms, but research so far did not conclusively demonstrate such a relation.

Objectives: To examine the association between weather conditions and daily symptoms of pain and fatigue in female patients with fibromyalgia, and to identify patient characteristics explaining individual differences in these associations.

Methods: Female patients with fibromyalgia ($n=333$, mean age 47.0 years, mean time since diagnosis 3.5 years) completed diaries, including questions on immediate pain and fatigue during 28 consecutive days. The daily weather conditions that were obtained from the Royal Netherlands Meteorological Institute (KNMI) in "De Bilt", the Netherlands, included air temperature, sunshine duration, rainfall, atmospheric pressure, relative humidity, and wind speed. Multilevel regression analysis was applied. Considering that six weather conditions were included, the p -value was set to 0.008.

Results: Few significant, but small associations were found between weather conditions and symptoms of pain and fatigue. Pain was associated with an increase in relative humidity on the previous day ($p=0.004$) and with rain on the same day ($p=0.003$); fatigue was associated with a higher air temperature on the previous day ($p=0.001$). Patients differed from each other with respect to associations of weather conditions with pain and fatigue (see Figure). However, no demographic, functional or mental patient characteristic was found to explain these differences in weather sensitivity.



OP0068 Mediation of childhood/adolescence maltreatment and adult fibromyalgia syndrome by depression – a case control study

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