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POS0365

SEX DIFFERENCES CONCERNING EXPERIENCED PAIN IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS

Keywords: Pain, Spondyloarthritis, Gender/diversity issues

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Background: Research shows that there are significant sex differences in experienced pain. Contributing factors are neuroanatomical, hormonal, neuro-immunological, psychological, social, cultural, and comorbidities. Women have more and different expression of nociceptors, and a stronger proinflammatory response to tissue damage than men. Women also use different coping styles regarding to pain and tend to engage more in pain catastrophizing. Therefore, women may experiencing more severe pain than men. Also in axial spondyloarthritis (axSpA), higher pain scores are observed in women compared to men with axSpA.[1] Sex differences in experienced pain within axSpA is not well studied. It is unclear if differences are related to the involvement of altered pain processing of the central nervous system (CNS) including central sensitization (CS) and/or psycho-social aspects.

Objectives: To explore sex differences in pain perception, coping with pain, pain catastrophizing and altered pain processing of the CNS in patients with axSpA.

Methods: A cross-sectional study of consecutive outpatients from the Groningen Leeuwarden axSpA (GLAS) cohort, fulfilling the ASAS classification criteria. Participants filled out the Central Sensitization Inventory (CSI), Pain Catastrophizing Scale (PCS) Coping with Rheumatic Stressors (CORS), and underwent Quantitative Sensory Testing (QST) according to a standardized protocol, including Pain Threshold Testing (PTT) at 11 sites, Temporal Summation (TS) at 3 sites and Conditioned Pain Modulation (CPM). Widespread low PPTs, high TS (both pain facilitation) and positive CPM (impaired pain inhibition) are indicators of CS. Independent Samples T Test and Mann-Whitney U Test were used for normally- and non-normally distributed data resp.. Bonferroni correction was applied for multiple significance testing and P-value was determined at 0.004.

Results: 201 patients were included, 128 men and 73 women with no significant differences in the patient characteristics; median age (50.8 vs 51.6 years), median symptom duration (22.0 vs 21.0 years) and median CRP (1.8 vs 2.5). Significant differences between men and women were observed for the classification radiographic axSpA (71.9% vs 50.7%), HLA-B27 status (84.1% vs 67.1%), mean BMI (27.2 ± 4.9 vs 29.0 ± 6.9), mean ASDAS_{CRP} (2.1 ± 0.8 vs 2.5 ± 0.9) and mean BASDAI (3.4 ± 2.1 vs 4.7 ± 2.1). Women scored significantly higher on the CSI and used the coping styles comforting cognitions, decreased activities

Table 1. Characteristics and assessments stratified for sex (n=201)

	Men (n=128)	Women (n=73)
CSI-A (0-100)	30.6 ± 13.8	41.5 ± 13.6*
PCS (0-52)	11.0 [5.0-20.0]	14.0 [5.0-19.5]
CORS pain		
Comforting cognitions	27.8 ± 4.9	29.9 ± 4.1*
Decreasing activities	18.8 ± 4.5	21.0 ± 4.3*
Diverting attention	20.1 ± 4.7	22.3 ± 3.9*
PPT (N)		
Thenar, left/right	37.4 ± 17.5/40.6 ± 19.1	26.1 ± 12.1/29.0 ± 14.2*
M. trapezius, left/right	40.1 ± 22.8/39.4 ± 20.9	26.8 ± 13.5/26.8 ± 14.5*
M. rectus femoris, left/right	58.0 ± 25.1/55.9 ± 26.8	35.2 ± 17.9/32.1 ± 16.3*
M. abductor hallucis, left/right	37.0 ± 18.4/38.6 ± 19.8	27.5 ± 13.2/28.7 ± 15.1*
Non-painful area	38.6 ± 22.1	25.0 ± 13.8*
Painful area	32.2 [22.4-51.6]	19.8 [13.0-28.7]*
TS (VAS)		
Non-dominant forearm	0.6 [0.1-1.2]	0.7 [0.2-2.1]
Non-painful area	0.8 [0.2-1.5]	1.1 [0.2-2.2]
Painful area	0.8 [0.2-1.6]	1.3 [0.3-2.7]
CPM (N)		
Non-dominant m. rectus femoris	2.8 ± 13.5	0.2 ± 8.3

*Statistically significant at p<0.004 (Bonferroni correction).

and diverted attention more often (CORS). Concerning the involvement of altered pain processing of the CNS, women had significantly lower PPTs. TS and CPM were comparable in men and women (Table 1).

Conclusion: In patients with axSpA, significant sex differences in pain coping styles, CSI score and PPTs were observed. Therefore, sex differences should be taken into account in the management of pain in daily clinical practice and in pain research in these patients.

REFERENCE:

[1] Rusman et al. Rheumatology 2020

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SEXUAL DYSFUNCTION IN SPONDYLOARTHRITIS PATIENTS: DIFFERENCES BETWEEN MALES AND FEMALES PATIENTS IN A REAL-WORLD SETTING

Keywords: Gender/diversity issues

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Background: In the field of rheumatology in general and in the context of spondylarthritis (SpA) more specifically, gender medicine is gaining more recognition and relevance. Available data suggest female patients feature higher diagnostic deladelayed to males. Furthermore, female SpA patients experience higher disease activity, lower response rates to treatment and, less probability to achieve remission. Sexual dysfunctions are an aspect little investigated in SpA. Disease features and disease activity are known to influence sexual health. Conversely, little is known about the difference existing in sexual satisfaction in males and females affected by SpA.

Objectives: To investigate the sexual function and satisfaction in female and male patients affected by SpA and identify gender-specific features.

Methods: We conducted a cross-sectional study enrolling consecutive SpA patients satisfying ASAS criteria attending the SpA clinic of a tertiary university rheumatology clinic. Demographic and clinical characteristics were collected alongside with validated gender-specific questionnaire for the evaluation of sexual function. For male assessment, we used the international index of erectile function (IIEF) and the Premature Ejaculation Diagnostic Tool (PEDT); whereas in women we used The Female Sexual Function Index (FSFI) that explores domains such as desire, arousal, lubrication, orgasm, satisfaction, and pain. To evaluate the correlation between the presence of sexual dysfunction and disease characteristics or therapies we used the Spearman test and the univariate and multivariate tests.

Results: 73 males and 64 females were recruited, and the two groups were comparable with similar mean age, BMI, and disease duration (patients' characteristics are shown in table 1). PEDT test showed that 9.5% (5 male patients) had probable premature ejaculation and 15% (8 male patients) had premature ejaculation. According to IIEF sexual dysfunction was present in 19.4% of cases as mild dysfunction in 15.5% as moderate dysfunction and in 5.4% as severe dysfunction. Univariate and multivariate analysis showed a correlation between sexual dysfunction and mood disorders and premature ejaculation in men (p=0.02). The prevalence of premature ejaculation was not influenced by disease characteristics or activity or therapies. Sexual dysfunction in males was associated only with the use of NSAID (p=0.04). Evaluating the female group, FSFI showed that 85% (54 female patients) had sexual dysfunction. In the univariate and multivariate analysis, we found correlations between age (p=0.07), mood disorders (p=0.04), dyslipidemia (p=0.006), and BASDAI (p=0.04). Fibromyalgia was detected only in women.

Conclusion: This data demonstrates that sexual function is impaired in an extremely high percentage of female SpA patients, which contributes to the higher burden of SpA on women. Sexuality is still a little explored topic in SpA, despite it is a relevant aspect of quality of life and determinant of psychological health. Therefore, it is necessary to thoroughly investigate the impact that the disease and comorbidities have on the sexual life of these patients with a particular focus on females.

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[1] Gender Differences in Axial Spondyloarthritis: Women Are Not So Lucky. Rusman T, van Vollenhoven RF, van der Horst-Bruinsma IE. Curr Rheumatol Rep. 2018 May 12;20(6):35. doi: 10.1007/s11926-018-0744-2.