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SAT0350 THE IMPACT OF FIBROMYALGIA ON SLEEP DISTURBANCE AND QUALITY OF LIFE IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Sleep disturbance is a very frequent symptom in patients with diseases associated with pain syndrome [1, 2]. Prevalence of sleep disorders in ankylosing spondylitis (AS) patients varies in a range of 35% to 90% [2]. One of the most common comorbid condition in patients with AS is fibromyalgia (FM), that can significantly worsen quality of life and sleep quality in patients with AS.

Objectives: The aim of this study was to evaluate the impact of FM comorbidity on sleep disturbance and quality of life in patients with AS.

Methods: One hundred and nineteen patients with AS according to modified New York criteria (mean age (M±SD) 42.23±11.5 years; 21 women and 98 men) were enrolled in the study. FM was diagnosed based on the 1990 American College of Rheumatology classification criteria. All patients were asked to complete self-report questionnaires, including the Pittsburgh Sleep Quality Index (PSQI) and Ankylosing Spondylitis Quality of Life Questionnaire (ASQoL) to assess sleep disturbance and quality of life.

Results: Of the AS patients, 23 (19.3%) met the criteria for FM. The patients were divided into two groups in terms of having or not having FM. Groups were representative for age and disease duration. Patients with AS and concomitant FM showed significantly increased frequency of sleep disturbance according to the PSQI. Only 26 patients with AS (27%) scored <5 and indicated as "good sleepers", whereas all patients with AS and concomitant FM has poor sleep quality. In group with AS patients mean scores (M±SD) of PSQI were 7.52±3.96 and in group with AS+FM - 11.04±3.5 ($P < 0.01$). Table 1 shows detailed information on the sleep quality of patients with and without FM.

Table 1. Sleep Disturbances in patients with Ankylosing Spondylitis and Concomitant Fibromyalgia according to Pittsburgh Sleep Quality Index (sleep component scores)

Component	AS with FM (n=23) (M ± SD)	AS without FM (n=96) (M ± SD)	P
Sleep quality	1.78±0.74	1.49±0.74	< 0,05
Sleep latency (time to fall asleep)	2.00±0.85	1.31±1.03	< 0,05
Sleep duration (hours of sleep)	1.61±1.08	1.16±1.02	< 0,05
Sleep efficiency (percentage of time asleep while in bed)	1.83±1.19	0.85±1.15	< 0,05
Sleep disturbances	1.87±0.46	1.32±0.55	< 0,05
Use of sleep medication	0.30±0.70	0.15±0.53	NS
Daytime dysfunction	1.65±0.93	1.23±0.91	< 0,05

In general, for each of the component scores, patients with AS scored lower than patients with AS+FM, with statistically significantly less severe sleep problems on all domains except for use of sleep medication. Patients with AS and concomitant FM showed poorer quality of life according to ASQoL compared to patients with alone AS (13.8±2.35 vs. 8.6±4.01; $p < 0,01$).

Conclusion: Sleep disturbance is a frequent condition in patients with AS. Our study results demonstrate the significant impact of FM comorbidity on sleep disturbance and quality of life in patients with AS.

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SAT0351 IBIS-Q (IBD IDENTIFICATION OF SPONDYLOARTHRITIS QUESTIONNAIRE): A NEW TOOL TO DETECT SPONDYLOARTHRITIS IN INFLAMMATORY BOWEL DISEASE PATIENTS

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Background: Extra-intestinal manifestations (EIM) are frequent in IBD with peripheral and axial spondyloarthritis (SpA) being the commonest EIM, being reported in up to 23% of subjects. Early detection of SpA is clinically relevant to drive the therapeutic management including the right treatment at the right time to prevent disability and improve the quality of life. In the literature there are few validated Rheumatology referral models for SpA for gastroenterological use

Objectives: The aim of this study was to develop a questionnaire to identify peripheral and axial SpA in a cohort of IBD patients (setting: IBD Unit of Sacro Cuore-Negar Hospital Verona in a rheumatological-gastroenterology clinic).

Methods: During a preliminary meeting a group of experts in SpA-IBD (6 rheumatologists and 4 gastroenterologists) generated a list of 42 items thought to cover all possible SpA manifestations including spinal, articular and enthesal involvement. Consecutive patients referred to the IBD Unit were then enrolled from January to May 2018 without excluding patients affected by EIM. Rheumatologic assessment was performed in the same day by a Rheumatologist blinded to the medical story and to the questionnaire results in order to collect data about the 66 swollen joint count (SJC) and 68 TJC, MASEI, LEI, presence of ASAS criteria for axial and peripheral SpA, presence of diagnostic criteria for fibromyalgia (FM) and non-specific low back pain (NSLB) pain mainly due to OA). If the patient presented a tender/swollen entheses, a US exam completed the clinical examination. The patient completed BASDAI and BASFI questionnaires in the same day. Factorial analysis to identify the main factors; ROC curves for sensibility/specificity; Youden index for cut-off were performed.

Table 1

1. Have you had pain in your heels?
2. Have you ever had back pain lasting at least 3 months that was not injury related?
3. Have you ever had a swollen wrist without having any trauma?
4. Have you ever had a swollen knee without having any trauma?
5. Do you wake up at night and walk because of low back pain?
6. In the morning is your back stiff for more than 30 minutes?
7. Have you ever had a stiff neck for some weeks or months?
8. Have you ever had a pain in your thigh which goes down to your knee and not beyond?
9. Is it difficult to pick things up from the floor without flexing your knees?
10. Have you ever had a swollen finger like a "sausage" for some days?
11. Do you find it difficult to walk because of foot pain?
12. Do you feel pain when people shake your hand?
13. Have you ever had swollen and painful hands?
14. Have you ever had swollen and painful feet?

Results: A final 38-items questionnaire was tested in 210 patients (excluding 17 patients for presence of other rheumatic diseases and 12 for incomplete evaluation). The psychometric analysis of the questionnaire was done on data of 181 patients. 58 patients of the enrolled patients met the ASAS criteria for SpA (13 axial, 5 both axial and peripheral 40 peripheral). The SpA prevalence in our cohort was 32% with 10 new cases detected by the questionnaire (5.5%: 7 peripheral and 3 axial). Through the psychometric and factorial analysis, we selected 14-items to

include in the final questionnaire (named IBIS-Q; Table 1) having a sensitivity 84.4% and specificity 80% to detect SpA (AUC 0.8803 with CI 95% 0.8305- 0.9301). We propose as cut-off of 4 positive questions of the IBIS-Q for SpA patient identification

Conclusion: IBIS-Q seems to be a useful and simple tool to use in our IBD clinic for the detection of SpA, with a good statistical performance. Further studies are needed to validate this questionnaire

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SAT0352 THE FREQUENCY OF OCULAR MANIFESTATIONS IN PATIENTS WITH ADULT VS. CHILDHOOD SPONDYLOARTHRITIS

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Background: Adult spondyloarthritis (SpA) is characterized by abnormal bone overgrowth and inflammatory erosive osteopenia in the spine. SpA may be associated with psoriasis and psoriatic arthritis (PsA), inflammatory bowel disease, reactive arthritis, enthesitis, and ocular features such as acute anterior iritis, and chronic uveitis. Juvenile SpA onsets in children under 16 years old and may present with more peripheral enthesopathies and arthritis than adult SpA.

Objectives: This meta-analysis investigated the frequency and type of ocular involvement in childhood and adult SpA. The difference in frequency between childhood and adult SpA was also investigated.

Methods: Medline, Web of Science and Cochrane databases were searched to September, 2018 to identify publications related to spondyloarthropathy (SpA), and ankylosing spondylitis (AS) with ocular conditions (OC) (conjunctivitis, keratoconjunctivitis sicca, xerophthalmia, uveitis, eye hemorrhage, optic neuritis, papilledema, orbital disease, retinal artery/vein occlusion, macular edema, retinitis, chorioretinitis, scleritis, iridocyclitis, choroid hemorrhage, blindness and amaurosis fugax). The rates of OC were extracted and random effects models estimated their frequency. Heterogeneity was evaluated using I^2 . Inclusion criteria were studies in SpA of either children or adults that included a frequency of OC. Differences in frequencies of OC between childhood and adult disease were compared using chi squared tests.

Results: The search process identified 3164 articles, of which 41 were eligible for inclusion. A pooled random effects model showed the prevalence of uveitis was 24% [20%-27%] in adult AS (23 studies, N= 11943 patients), 10% [7%-14%] in adult PsA (9 studies, N=1817), and 17% [10%-24%] in undifferentiated adult SpA (9 studies, 6568 patients). In juveniles with AS, the prevalence of uveitis was 27% [16%-39%] (8 studies, 927 patients). In child onset PsA, uveitis occurred in 16% [10%-21%] (5 studies, N=498), and in juvenile undifferentiated SpA, uveitis had a frequency of 7% [1%-12%] (2 studies, N=1531). The differences in frequency of uveitis in adults vs. child onset SpA spectrum diseases were not significantly different between AS and JAS ($p=0.891$), PsA and JPsA ($p=0.732$) and between SpA and JSpA.

Conclusion: This meta-analysis compares the frequency of ocular involvement in seronegative spectrum diseases in adults and children where it appears that the frequency of uveitis is not statistically different in adult vs. child onset SpA and the subsets.

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Figure 1. The frequency of ocular manifestations in adults with ankylosing spondylitis

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SAT0353 HIGH PREVALENCE OF NEWLY DIAGNOSED AXIAL SPONDYLOARTHRITIS IN PATIENTS WITH ACUTE ANTERIOR UVEITIS AND CHRONIC BACK PAIN – PRELIMINARY RESULTS OF THE SP-EYE STUDY

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Background: One third of the axial spondyloarthritis (axSpA) patients suffers from acute anterior uveitis (AAU). Correspondingly, AAU can be the first sign of axSpA and previous studies described undetected axSpA in up to 40% of the patients with noninfectious AAU.

Objectives: To study whether referral of all patients with AAU and chronic back pain results in a high prevalence of newly diagnosed axSpA patients.

Table 1. Patient characteristics at referral.

	Overall (N=50)	Definite axSpA (N=13)	Suspicion of early axSpA (N=21)	No suspicion of axSpA (N=16)
Age	42 (±13)	44 (±15)	38 (±9)	45 (±15)
Gender, men	26 (52)	10 (77)	11 (52)	5 (31)
Back pain duration, years	15 (5-27)	14 (5-27)	9 (4-24)	21 (15-32)
Inflammatory back pain	21 (42)	9 (70)	9 (43)	3 (19)
>1 anterior uveitis	26 (52)	9 (69)	12 (57)	5 (31)
HLA-B27 positive	27 (54)	11 (85)	12 (57)	4 (25)
SpA features (ASAS)	3 (±1)	4 (±1)	3 (±1)	2 (±1)
SI joint abnormality	16 (32)	9 (69)	6 (29)	1 (6)
Sacroiliitis, mNY criteria	9 (18)	7 (54)	2 (10)	0 (0)
BASMI	2.4 (±2.4)	4.2 (±4.0)	1.6 (±0.7)	2.0 (±1.3)
BASDAI	3 (2-5)	2 (2-4)	3 (2-5)	3 (2-5)
ASDAS-CRP	21 (42)	6 (46)	10 (48)	5 (31)
≥2.1				

Legend: Numbers are depicted as mean (±SD), median (Q1-Q3) or number of patients (%).

Methods: A prospective ongoing observational study was started in April 2017, including all patients with noninfectious AAU and a history of back pain (≥3 months, started < age of 45 years), referred from six Ophthalmology clinics to the Rheumatology Outpatient Clinic of the VU medical center. Patients with a known systemic disease associated with AAU were excluded. Patient characteristics, laboratory (HLA-B27, C-reactive