

AB0341 HOW COMMON IS DISCORDANCE IN DAS COMPONENTS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Chronic pain remains a significant problem for patients with rheumatoid arthritis (RA) despite advances in the management of joint inflammation (1–3). Pain that persists in the absence of significant inflammatory disease activity is thought to arise from sensitisation of the central nervous system. Composite scores such as DAS28, combine both objective and subjective aspects of disease. This may overestimate inflammatory disease in patients in whom pain occurs independently and has implications for treatment. However, the proportions of patients with such discordance is not clear.

Objectives: 1. To assess the degree of discordance between objective and subjective components of the DAS28 score in patients attending rheumatology clinics in a teaching hospital in Cambridge.

2. To assess the association between such discordance and the DAS28-P measure

Methods: A retrospective review of clinic notes was conducted of patients attending the rheumatology department at Addenbrooke's Hospital, Cambridge. Patients attending the early arthritis clinic, nurse practitioner follow up clinic and biologics clinic were included. Demographic information was collected including age, gender, current use of synthetic and biologic DMARDs. DAS28 scores and the individual components were retrieved and analysed. DAS28P was calculated as well as the difference between tender and swollen joint count (TJC-SJC) which has also been noted to be a measure of discordance between subjective and objective symptoms.

Results: 120 patients with RA were studied. The mean age was 59.4 years (range 27–86). 74% (89) were female. 88% (106) were on synthetic DMARDs: MTX 48% (58), HCQ 37% (45), SSZ 12% (15), LEF 3% (4), Gold 0.8% (1). 30% (36) were on biologic DMARDs: RTX 30% (11), ETA 30% (11), TOCI 17% (6), ADA 14% (5), ABA 6% (2).

Mean DAS28 was 3.42, SD 1.39. Mean TJC 4, mean SJC 2. Mean PGA 43, SD 24. DAS28-P was calculated as per previous studies (3). Mean TJC-SJC was 2, median 1. PGA and TJC-SJC ($r=0.33$) and TJC-SJC and DAS28P were correlated ($r=0.44$).

Conclusions: Discordance between subjective and objective components of DAS scores is relatively frequent in patients with RA. This can lead to confounding of DAS scores. There is currently no formal system of assessing the degree of such discordance which can have implications for treatment of inflammatory disease as compared to pain management strategies.

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AB0342 POOR SLEEP QUALITY IN PATIENTS WITH RHEUMATOID ARTHRITIS RELATED TO SUBCLINICAL CERVICAL SPINE AFFECTION MEASURED BY MRI

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Background: Rheumatoid arthritis is a chronic systemic inflammatory disease that often affects the cervical spine. Cervical disorders in rheumatoid arthritis (RA) patients have been an important problem for a long time

Objectives: investigate association between poor sleep complaints in rheumatoid arthritis patients and subclinical cervical spine involvement measured by MRI and its relation to disease activity in a population-based cross-sectional study.

Methods: 200 Egyptian RA patients fulfilling the American college of Rheumatology Criteria 2010 who were under follow up in the rheumatology and pain clinic, Assuit university hospital, Egypt. All patients underwent a complete history and physical examination with a focus on the cervical spine to assess disease duration, age of disease onset, swollen and tender joint counts. ESR, Hb, CRP, RF levels and disease activity was measured using the disease activity score 28 (DAS28). Oswestry-Neck-Pain-Questionnaire were completed. All patients filled out the Pittsburgh sleep quality index to evaluate their sleep quality, anxiety and depression scale. Symptomatic patients and previously diagnosed cervical subluxation were excluded. Radiographs of the cervical spine included lateral views taken in flexion, extension, neutral position of neck and antero-posteriorly and odontoid projection view. Patients suspicious for atlantoaxial affection underwent Magnetic Resonance Imaging to evaluate the cervicomedullary angle, dens erosion, amount of hypervascular –active pannus, atlantoaxial impaction, vertebral plate erosion, subaxial subluxation, apophyseal joints and disc material

Results: Asymptomatic cervical spine subluxation was found in 46 of the 200 RA patients (23%). The prevalence among involved patients of, anterior atlanto-axial subluxation, atlantoaxial impaction and subaxial subluxation was 25 (54.3%), 8 (17.4%) and 13 (28.2%), respectively. Posterior subluxation was not detected. There is significant relationship with cervical spine subluxation and sleep disturbance (interruption pattern) ($P=0.006$). The main baseline risk factor for difficulty falling asleep was anterior atlanto-axial subluxation, whereas

for cervical spine subluxation it was higher patient age. Logistic regression confirmed early final awakening and short sleep respectively (HR 1.109, 95% CI 1.120–1.260, $p=0.05$) and (HR 1.095, 95% CI 0.991–0.998, $p=0.005$) as independent predictors of anterior atlanto-axial subluxation. The main risk factors for incident hypervascular atlantoaxial joint active pannus was disease activity score and older age. The frequency of early final awakening and short sleep were higher in relation to cervical spine involvement. Male sex, CRP positivity, and older age were risk factors for incident anterior atlantoaxial subluxation.

Conclusions: Cervical spine involvement is common and may be asymptomatic indicating routine cervical spine imaging is needed in patients with RA specially patients with sleep disturbances and high disease activity

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AB0343 THE RHEUMATOID FOREFOOT: WHICH FREQUENT INJURY? WHAT IMPACT ON WALK?

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Background: Foot involvement is the most common cause of disability in patients with rheumatoid arthritis (RA). The forefoot remains the most affected location.

Objectives: Investigate the forefoot injuries in patients with RA and evaluate its impact on walking.

Methods: Cross-sectional study of 33 patients with rheumatoid arthritis. Patients with static lower limb disorder or foot injury from other origin were excluded. Demographic and clinico-biological characteristics were collected: age, sex, BMI, disease duration, tender joint count, swollen joint count, foot pain evaluated on an VAS, squeeze test in foot, various podiatric abnormalities, sedimentation rate in the first hour, C reactive protein, rheumatoid factor and anti-CCP. Disease activity was evaluated by DAS28, CDAI, SDAI and DAS44. The effect on walking was studied by the HAQ (specific item of walking) and the French version of FFI (Foot Functional Index) which consists on 23 items, divided into 3 sections: pain, function and limitation of activity. Statistical analysis was performed using SPSS21 software.

Results: 33 patients followed for RA were included. The mean age of our patients was 49.39±10.52 with a female predominance (87.9%). Mean duration of the disease was 9.96±7.49 years. 21 (95.5%) of patients were seropositive. Mean DAS28 was 5.53 (4.58–6.50) and mean HAQ was 1.37 (0.70–2.10). 54.5% of our patients reported right forefoot pain and 57.6% of them reported left forefoot pain; with predominant metatarsalgia (right 54.5% and left 57.6%). 33.3% had for foot pain in the day of the examination and 69.7% (23) had a positive squeeze test. 18 (54.5%) patients had a foot podiatric abnormalities. They are represented by: right hallux valgus (39.4%), left hallux valgus (39.4%), right quintus varus (12.1%), left quintus varus (9.1%), right claw toe (9.1%), left claw toe (12.1%), right triangular foot (6.1%) and left triangular foot (6.1%).

Mean FFI was 52.35 (34.73–71.43), and mean FFI-function was 53.66 (34.44–74.99). 27.3% (9) of patients had walking difficulty according to item 4 of HAQ. A statistically significant association was found between a high FFI-function and metatarso-phalangeal pain ($p=0.029$), anterior plantar pain ($p=0.018$) and a positive squeeze test ($p=0.01$). Impairment of walking assessed by FFI-function was positively correlated with pain ($r=0.58, p=0.0001$) and discomfort in for foot ($r=0.452, p=0.008$), VAS pain ($r=0.48, p=0.005$) and global gene VAS ($r=0.70, p=0.001$) associated with disease. Disease activity was positively correlated with FFI-function (DAS28 ($r=0.48, p=0.005$), CDAI ($r=0.6, p=0.0001$), SDAI ($r=0.60, p=0.0001$) and DAS44 ($r=0.55, p=0.001$)). The difficulty of walking assessed by item 4 of HAQ was associated with metatarso-phalangeal pain ($p=0.01$), and was not influenced by adaptation of the footwear ($p=0.015$). Also, item 4 was statistically associated with disease activity (DAS28 ($p=0.028$) and SDAI ($p=0.049$)) and impaired function evaluated by FFI ($p=0.001$) and particularly FFI-Function ($p=0.0001$). Podological abnormalities were not statistically associated with either functional FFI or the item 4 of HAQ.

Conclusions: Forefoot involvement is frequent during RA, particularly podiatric abnormalities. It generates a functional repercussion on walking which would be rather related to pain and disease activity than to podiatric abnormalities.

Disclosure of Interest: None declared

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AB0344 SUBCLINICAL VASCULAR DAMAGE AND ITS ASSOCIATION WITH ACPA AND RF IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Accelerated atherosclerosis (AE) and increased arterial stiffness

are comorbidities of rheumatoid arthritis (RA) and are related to the inflammatory burden of the disease, as well as to certain clinical and genetic characteristics of the disease. There is controversy about the role of ACPA in the development of AE in these patients.

Objectives: To explore the relation between ACPA and RF titres and subclinical vascular damage in RA patients.

Methods: Descriptive cross-sectional study with analytical components. A total of 244 RA patients were recruited consecutively over a period of 18 months (2013–2014) in a rheumatology department of a tertiary hospital. Patients with high vascular risk (vascular ischemic events, renal failure and diabetes mellitus) were excluded. Demographics, clinical data (ACPA and RF titres, duration of disease, hypertension and dyslipidemia) and vascular damage (atheroma plaque, carotid intima thickness [IMTc] and pulse wave velocity [PWV]) were collected. The atheroma plaque and IMTc measurement was performed by ultrasonography of the carotid arterial tree using an Esaote® MyLab70XVG with a 7–12 MHz linear transducer and an automated program measuring intima-media thickness (IMT) through radiofrequency (Quality intima media Thickness in real time, QIMT). PWV was obtained by analysis of brachial pulse waves with an automated and validated system (Mobil O Graph®). Statistical analysis was performed with the SPSS 17.0 program.

Results: We included 181 patients, 141 (77.9%) women and 40 (22.1%) men, with a mean age of 60.4 years (SD 13.2) and a mean duration of the disease of 13.1 years (SD 10.5); 107 patients (59.1%) were smokers or ex-smokers, 56 (30.9%) hypertensive and 77 (42.5%) dyslipidemic. 118 patients (65.2%) had positive ACPA, with a mean value of 330 (SD 621.5), and 107 (59.1%) had a positive value of RF with a mean of 114 (SD 164.5).

No association was found between the positivity of ACPA and RF and the presence of atheroma plaques or with the values of IMTc and/or PWV. In patients with positive ACPA, a positive correlation was observed between ACPA titres and PWV values ($p < 0.05$). In particular, ACPA titres over 1600 were the ones that discriminated the highest values of PWV in our population ($p < 0.009$). The ACPA and RF values, on the other hand, were not related to the presence of plaques or to IMTc.

Conclusions: No relation was found between the positivity of RF and ACPA titres and the presence of pathological carotid ultrasound in our RA patient population. However, higher arterial stiffness was observed in patients with high ACPA titres.

Disclosure of Interest: None declared

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AB0345 PSYCHIATRIC DISORDERS RELATED TO HYPERLEPTINEMIA AND RHEUMATOID ARTHRITIS CLINICAL ACTIVITY MEASURED BY DAS28

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Background: Leptin is an adipose-derived hormone with a role in depression related to chronic stress, anxiety and pain disorders, disturbs with a high prevalence in RA patients. In previous studies, it has been demonstrated the role of leptin in the pathogenesis of RA, in particular, its association with anti-CCP. The purpose of this study was to evaluate the psychiatric disorders risk related to serum soluble leptin (sLep) levels with clinical activity in RA patients.

Objectives: To evaluate the association between psychiatric disorders and serum leptin (sLep) levels and RA disease activity

Methods: 76 outpatients diagnosed with RA (ACR1987/ACR/EULAR2010) were evaluated with clinical, laboratory and image assessment. Disease activity was measured using DAS28 CRP, the Mini International Neuropsychiatric Interview Plus (M. I. N. I. Plus) was used for the psychiatric evaluation. sLep levels were measured by ELISA method.

Results: sLep levels were significantly higher in RA patients M.I.N.I. plus (+) ($P < 0.001$). DAS28 CRP score was significantly higher in patients with a present psychiatric disorder ($P = 0.006$) with an odds ratio of 1.6 ([1.04–2.46] $P = 0.03$) for present psychiatric comorbidity. After adjustment with age and years of RA diagnosis, the odds ratio increased to 1.72 ([1.08–2.73] $P = 0.02$). Also, DAS28 CRP had a moderate correlation with the number of psychiatric diagnosis present, past and for lifetime ($r = 0.485$, $P < 0.001$, IC95% [0.99–0.636]).

Conclusions: sLep levels and DAS28-CRP were associated with symptoms of depression, such as anxiety and pain disorder in RA patients.

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AB0346 MOOD DISORDERS (ANXIETY AND DEPRESSION) IN RHEUMATOID ARTHRITIS

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Background: In addition to recurrent pain, fatigue, and increased rates of physical

disability, individuals with rheumatoid arthritis (RA) have an increased prevalence of some mental health disorders, particularly those involving affective or mood disturbances. Many researchers have shown that mood disturbance and disability may serve as important pathways through which disease burden contributes to poor health functioning in RA.

Objectives: Our aim is to estimate the mood disorders (anxiety and depression) in patients with RA and to evaluate the associated factors.

Methods: This is a cross-sectional and descriptive study during a period of the year 2016, including 37 patients followed in the department of Rheumatology in Mahdia Tunisia. All patients were diagnosed with RA based in ACR 1987/EULAR2010. We evaluated for each patient the parameters of activity of the disease, the quality of life by the HAQ questionnaire and the mood disorders using the Hospital Anxiety and Depression Scale (HAD).

Results: The age of the RA patients (32 females/5 males) ranged from 21 to 76 years. The mean age was 53.1±12 years. The mean duration of the disease was 11±10 years [1–34]. The mean number of tender joints was 13.2±9.6 and swollen joint was 5.9±7. The mean DAS28 was 5.5±1.5 [2.9–8.2] and HAQ was 1.6±0.9 [0–2.8]. 51.3% of patients had specific joint deformations, 83.8% had radiologic involvement and 29.7% had osteoporosis.

The biologic analysis showed that the mean ESR was 45±27.1 and the CRP was 13.7±25.3. Rheumatoid factors were positive in 37.8% of cases, the ACPA were positive in 32.4% of cases. 81.1% of RA patients were treated by methotrexate and 13.5% were treated by biologic treatments.

The average score of depression was 9±2.6 [1–14]. Basing on this score, 12 patients (32.4% of cases) didn't have depression (score <8), 14 patients (37.8% of cases) suffered probably from depression (score between 8 and 10) and 11 patients (29.7%) had a certain depression (score ≥10). Our study didn't find any correlation between the score of depression and the age, the score and clinical parameters of RA (duration of disease, DAS28, number of tender and swollen joints and deformations), the score and biologic parameters (ESR, CRP, Rheumatoid factor, ACPA).

The average score of anxiety was 9.2±4.2 [0–20]. 12 patients (32.4%) didn't have signs of anxiety (score <8), 12 patients (32.4%) had probably an anxiety (score between 8 and 10) and 13 patients (35.2%) presented a certain anxiety (score ≥10). We found a significant correlation between the score of anxiety and the number of tender joints, the anxiety score and the HAQ (Health Assessment Quality).

Conclusions: Our study showed that the majority of our RA patients suffered from mood disorders; 67.5% had signs of depression and 65.6% had signs of anxiety. So, it's important to evaluate the mood disturbances in RA patients to ameliorate their quality of life.

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AB0347 EVALUATION OF THE IMPACT OF RHEUMATOID ARTHRITIS ON SEXUAL FUNCTION

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Background: Rheumatoid arthritis (RA) may affect all aspects of life including sexual functioning. The percentage of arthritic patients who experience sexual problems ranged in various studies from 31% to 76%. The reasons for disturbing sexual functioning are multi-factorial and comprise disease-related factors as well as therapy. It can occur before, during and after sexual activities, and can affect sexual health in different perspectives.

Objectives: The aim of our study is to evaluate the impact of the RA in sexual function and its associated factors.

Methods: This is a cross-sectional and descriptive study during a period of the year 2016, including 37 patients followed in the department of Rheumatology in Mahdia Tunisia. All patients were diagnosed with RA based in ACR 1987/EULAR 2010. We evaluated for each patient the sexual quotient (QS). It is a validated scale which estimates the degree of satisfaction of the sex life.

Results: The age of the RA patients (32 females/5 males) ranged from 21 to 76 years. The mean age was 53.1±12 years. The mean duration of the disease was 11±10 years [1–34]. The mean number of tender joints was 13.2±9.6 and swollen joint was 5.9±7. The mean DAS28 was 5.5±1.5 [2.9–8.2] and HAQ was 1.6±0.9 [0–2.8]. 51.3% of patients had specific joint deformations, 83.8% had radiologic involvement and 29.7% had osteoporosis.

The biologic analysis showed that the mean ESR was 45±27.1 and the CRP was 13.7±25.3. Rheumatoid factors were positive in 37.8% of cases, the ACPA were positive in 32.4% of cases. 81.1% of RA patients were treated by methotrexate and 13.5% were treated by biologic treatments.

The mean sexual quotient was 50.25±20.8 [6–87.5]; only 8.1% of patients had a great sexual life (QS between 80 and 100), 16.2% expressed some sexual satisfaction (QS between 60 and 80), 21.6% had a mild sexual life (QS between