SIGNIFICANCE OF OCCULT INFECTIONS IN INFLAMMATORY ARTHRITIS PATIENTS RECEIVING BIOLOGIC THERAPIES IN EAST LONDON


Background: Chronic hepatitis B virus (HBV) infection remains a significant global health problem. In high endemic areas like African and Asian countries, most infections occur from vertical transmission, whilst in western countries HBV is primarily acquired in adulthood. Either way, HBV can persist in infected hepatocytes lifelong, even if undetectable in the serum, allowing reactivation during immunosuppression. HBsAg carriers, those with detectable HBV viral load, or receiving concomitant corticosteroids are at greater risk. Most guidelines recommend screening for occult infections prior to starting biologic treatment including testing for HBV, HCV, HIV and TB infection.

Objectives: This study was carried out to estimate the prevalence of occult infections, particularly chronic HBV, in an East London rheumatology population receiving biologic therapies, and to evaluate the rate of HBV reactivation after starting treatment.

Methods: Inflammatory arthritis patients starting biologic therapies in Barts Health NHS Trust between August 2014 and August 2017 were identified from databases of Whipps Cross and Mile End Hospitals. Health records were reviewed focusing on HBV core antibody (HBcAb), HBV surface antigen (HBsAg), HBV DNA, HCV and HIV antibody status. Latent TB tests included IGRAs and ELI-Spot assays.

Results: 757 patients were included in the study. Of those, 51 (6.7%) were HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline. 61% (n=31) of HBcAb positive, 6 patients (0.8%) were HBsAg positive and two patients had low level HBV viraemia with detectable DNA antibody at baseline.

Conclusions: Approximately 50% of the patient population of Barts Health NHS Trust is coming from minority ethnic groups. Likely because of the diversity of the population, the prevalence of chronic HBV infection (HBsAg and HBcAb positives) in our East London rheumatology population receiving biologic therapies was higher than the national average (0.8% vs. 0.3%, respectively). No HBV reactivation was observed in the follow up period indicating that the risk of reactivation is relatively low. Nevertheless, for patients with evidence of previous infection (HBcAb positive) careful surveillance continues to be recommended.

Disclosure of Interest: None declared


FACTORS OF THE POSITIVE OR NEGATIVE ANSWER ON THERAPY WITH DENOSUMAB IN WOMEN WITH RHEUMATOID ARTHRITIS AND OSTEOPOROSIS

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Objectives: To define a contribution of factors: anamnesis, clinical/laboratory markers, glucocorticoids (GC) intake, etc. on the response to therapy with denosumab in women with rheumatoid arthritis (RA) and osteoporosis (OP).

Methods: 66 postmenopausal women (mean age 59.6±7.4) with RA (mean duration 17.7±10.4 years) and OP received s/c denosumab 60 mg every 6 months pro 1 year. RF- positive were 72%, ACCP – 74% of patients. 34 (49%) continued GC. At baseline and after 12 months it was carried out the dual energy x-ray absorptiometry at 3 sites: lumbar spine (L1-L4), hip neck (HN) and distal forearm (DF) and ultrasound of tendons. After therapy it was noted the increase of BMD in L1-L4 and HN, a tendency to increase in DF (p=0,0529) in DF. Positive dynamics (increase or stabilisation of BMD) was noted in 89% patients at L1-L4, 67% – at HN and 60% – at DF. The erosion score was increased in 12% (n=8) patients, the joint space narrowing score (JSN) – in 9% (n=5) (p=0.0171 and p=0.027, respectively). The Statistica 6.0 was used.

Results: Results of analysis of influence of statistically significant factors on the response to therapy in BMD showed that the negative response in L1-L4 was associated with GC intake (>3 months in anamnesis) (p=0.034) and the beginning of GC intake after menopause onset (p=0.023). In FN positive response is associated with higher concentration of the RF (initially and in dynamics) (p<0.05) and the beginning of menopause later than RA onset (p=0.024), the negative response – with GC intake (>3 months in anamnesis) (p=0.004). In DF positive response on therapy is associated with RF-positivity (p=0.02), the negative response back correlates with increase in erosion score and total SVH score: r=-0360 (p<0.05).

In table 1 it is shown the most significant factors, which influence on SVH score dynamics (increase) after 12 months of denosumab therapy.

Abstract AB0354 – Table 1. The factors which influence on SVH score increase (n=66), p<0.05.

<table>
<thead>
<tr>
<th>SVH score</th>
<th>The score increase is associated with</th>
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<tr>
<td>Erosion score</td>
<td>lower BMD in L1-L4 (at baseline and after treatment)</td>
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<td></td>
<td>higher cumulative GC dose</td>
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<td>back correlates with BMD increase in DF</td>
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<td></td>
<td>back correlates with bone alkaline phosphatase (BAP) base level</td>
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<td></td>
<td>correlates with increase in JSN</td>
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<tr>
<td>Joint space narrowing score (JSN)</td>
<td>presence at patients in anamnesis a surgical menopause</td>
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<tr>
<td></td>
<td>lower value of BMD dynamics (%) in DF</td>
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<tr>
<td></td>
<td>correlates with increase in erosion score and total SVH score</td>
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</table>
Conclusions: There was established that positive response on therapy with denosumab in BMD in NH and DF is associated with RF-positivity. The particular correlation of positive response in L1-L4 and DH in association with GC intake (previous intake more than 3 months in the anamnesis), purpose of the GC after menopause onset. There was note that the increase of erosion score is associated with either lower BMD in L1-L4 (at baseline and after treatment) or back correlation with BMD increase in DF. Also the higher cumulative GC dose and back correlation with BAP base level were observed at patients with increased erosion score. The only factors that we could reveal in patients with increased JSN score were surgical menopause in anamnesis and lower value of BMD dynamics (%) in DF after treatment. In general it was a direct correlation between erosion score and JSN score.

Disclosure of Interest: None declared


AB0355  THE RELATIONSHIP BETWEEN HAND PREHENSILE STRENGTH, CLINICAL ACTIVITY AND FUNCTIONAL CAPACITY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: The hand is an anatomical structure with a large number of joints; its prehensile grasp capability constitutes a highly specialised biomechanical function. In rheumatoid arthritis (RA), the structures of the joint are damaged by the characteristic inflammatory process1 The Disease Activity Score (DAS28) considers twenty hand joints in the evaluation of rheumatoid arthritis (RA). While the Health Assessment Questionnaire (HAQ) disability index (DI) (HAQ-DI) is the most frequently used instrument for measuring self-reported physical function in rheumatoid arthritis and considers the ability to dress and groom, get up, eat, hygiene, reach, grasp, situations in which the functional capability of the hand is crucial.

Objectives: To assess the relationship between hand prehensile strength, the DAS28 index and HAQ-DI score in patients with diagnosis of RA.

Methods: The prehensile strength was obtained by the dynamometry method from 105 AR patients, the maximum strength levels in the dominant and non-dominant hand were considered. The Disease Activity Score in 28 joints using the erythrocyte sedimentation rate (DAS28-ESR) and HAQ-DI were recorded.

Results: The maximum prehensile strength, on average, was 14 kg, and the weak force category was more prevalent. The prehensile strength of both hands was negatively correlated with the HAQ-DI score and DAS28 index. In an adjusted logistic regression model, the “weak” strength category of the non-dominant hand was associated with “moderate clinical activity” in the DAS28 score (OR=8.59, p=0.02), while the category of “weak” strength of the dominant hand was associated with the presence of “some difficulty” of HAQ-DI score (OR=4.75, p=0.10).

Conclusions: The decrease in prehensile strength represents a marker associated with the DAS28 index and HAQ-DI score in the patient with RA, regardless of age, muscle mass, total fat or body mass. The measurement of the prehensile strength can be a useful and inexpensive tool to be considered in the clinical evaluation of the RA.

REFERENCE:

Acknowledgements: None.

Disclosure of Interest: None declared


AB0356  BUILDING A PATIENT-CENTRED CARDIOVASCULAR RISK REDUCTION PROGRAM FOR PATIENTS WITH INFLAMMATORY ARTHRITIS


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Background: Cardiovascular disease (CVD) is the most common cause of death among patients with inflammatory arthritis (IA) such as rheumatoid arthritis (RA), psoriatic arthritis (PsA) or ankylosing spondylitis (AS).

Objectives: This study is the formative work to help design a patient-centred intervention for a CVD risk reduction program for patients with IA.

Methods: We conducted a qualitative study guided by Bandura’s Social Cognitive Theory, placing special focus on knowledge about the relationship between arthritis and CVD as well as barriers and facilitators to receiving healthcare related to CVD risk such as screening and management for hyperlipidemia. Participants had to have RA, PsA or AS and were recruited from a single academic centre. Data were analysed thematically.

Results: We conducted the three focus groups with a total of 17 participants. Mean age of participants was 56 (SD ±7.7) years; 15 were women; 3 were on a statin; and 1 previously had a stroke. The majority of the participants were Five themes emerged: 1) Need for more information about IA and medications; 2) Lack of education about CVD risk and IA; 3) CVD risk reduction as an integrated lifestyle modification; 4) Uses for peer support around relevant CVD factor mitigation approaches; and 5) Improving doctor-patient communication about RA. The themes that emerged in our study showed that the majority of these IA patients were not aware of the relationship between CVD and IA, and were very interested in learning about IA, medication side effects, and prognosis of IA. These participants wanted to learn first about IA and, as a secondary goal, learn about their CVD risk in the context of their IA rather than as a new condition.

Conclusions: Providing a clear understanding about systemic effects of IA and how to treat it will be needed before focusing on CVD risk reduction. By doing so, there will be better opportunity for the CVD risk reduction program to succeed.

Disclosure of Interest: I. Navarro-Millán: None declared, S. Young: None declared, S. Shurbaji: None declared, C. McDavid: None declared, A. Cornelius-Schecter: None declared, B. Johnson: None declared, A. Cherrington Grant/research support from: Boehringer Ingelheim, Consultant for: Novo Nordisk, Astrazeneca, L. Fraenkel: None declared, J. Curtis: None declared, M. Safford Grant/research support from: Amgen, Inc

DOI: 10.1136/annrheumdis-2018-eular.2932