GENETIC POLYMORPHISMS AND METHOTREXATE SAFETY IN RHEUMATOID ARTHRITIS
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Background: Methotrexate (MTX) is the DMARD of choice in the treatment of rheumatoid arthritis (RA). Despite an acceptable efficacy, its use is limited by side effects. The most known adverse events (AE) are gastrointestinal, hepatic, and haematological.

Objectives: To study the effect of clinical characteristics and of different genetic single nucleotide polymorphisms (SNPs) related to the transport and metabolic pathways of MTX, on the toxicity of this compound, in a cohort of RA patients treated with MTX in monotherapy.

Methods: Observational study. Toxicity was defined as the occurrence of AE, global and of haematological, hepatic, and gastrointestinal nature. Factors under study: SNPs of transport (ABCB1 C3435T), glutatimation (GGT16 C and FPGS G2782A), transmethylation (MTHFR C677T and MTHFR A1298C) and adenosine (AMPD1 C347, ADA A534G, ITPA C94A). The association between SNPs and MTX toxicity was analysed using logistic regression models, assessing allele independence (Hardy-Weinberg equilibrium) and interaction with sex. Different models of inheritance of SNPs were analysed. The models were adjusted by the characteristics of the patient, of disease and of treatment. The haplotypes of the MTHFR SNPs (C677T and A1298C) were also analysed.

Results: Bivariate analysis showed that RA, globally considered, are related to lower age at diagnosis (OR=0.98), female sex (OR=1.95), disease activity (OR=1.38), extra-articular manifestations (OR=1.84) and comorbidity (OR=1.14). For the SNPs, the A/G genotype of the ADA A534G decreases the probability of AE (OR=0.55); the G/G of the ADA A534G increases the hepatic AE (OR=10.1) and the genotypes C/T and T/T of the ABCB1 C3435T decrease the risk of haematological AE.

According to the adjusted analysis, the probability of global AE increased with the C/T genotype of MTHFR C677T (OR=1.85) and C/C of H3416C (OR=1.53) and decreased with the A/G of ADA A534G (OR=0.49). Gastrointestinal AEs were less frequent in patients with A/G genotype of ADA A534G (OR=0.49) and in men with G/A of FPGS G2782GAc (OR=0.29). The G/G genotype of the SNP ADA A534G was associated with a significant increase in hepatic AE (OR=12.7), which was also observed in men with the MTHFR A1298C (OR=8.34). The T allele of the ABCB1 C3435T decreased the probability of haematological AE, especially in women (OR=0.06). All the effects were independent of the characteristics of patient, disease and treatment. The C/C haplotype of the combination MTHFR C677T and MTHFR A1298C increases the probability of global (OR=4.35) and hepatic AE (OR=1.19) in men, but not in women.

Conclusions: SNPs related to the transport and metabolism of MTX are associated with liver toxicity of MTX.

Disclosure of Interest: None declared

PREVALENCE OF RHEUMATIC DISEASES IN A MAYA-YUCATECO INDIGENOUS POPULATION: A COHORT COMMUNITY-BASED STUDY
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Background: Eighty percent of people living with rheumatoid arthritis (RA) are seropositive. Recent studies show that seronegative RA is associated with a more aggressive clinical presentation; however, this association has not been studied in indigenous populations.

Objectives: To compare the clinical and radiographic characteristics, function and quality of life in a group of Maya-Yucateco indigenous patients with RA, based on their seropositivity Rheumatoid Factor (RF-igm).

Methods: A community-based cohort was formed in 2014 with the aim of detecting and performing a community intervention in a Mayan Municipality in Mexico. Patients who fulfilled ACR/EULAR criteria 1987/2010 for RA were included and rheumatologists evaluated them every 3 months. All evaluations were conducted in the community with the support of trained translators and included: 1. Clinical examinations. 2. Laboratory tests (i.e. RF, ESR, CRP). 3. Radiographic evaluations. 4. Functioning (HAQ-DI) and quality of life (EQ5D-3L) assessments. 5. Pharmacological treatment. 6. Non-pharmacological treatment: individual and group exercises.

A qualitative comparative analysis was conducted by dividing the cohort in sero-positive and seronegative and comparing all variables measured using a z2 test. Student’s t test or Mann-Whitney U test, as well as Kruskal-Wallis test for the non-parametric variables.

Results: Twenty-eight of 430 participants were diagnosed with RA (1.8%, C195%; 1.2 to 2.6), for an incidence 0.72% (C195% 0.3 to 1.2) in 4 years. Seventy-eight% were women, the mean age was 53.9 years (standard deviation (SD)=13.2) and the level of education was on average 2 years (0–5.5).

We observed high prevalence of family history of rheumatic disease (75%), exposure to woodstove (96.1%), and a Chikungunya virus infection (10.7%) and RF (65.3%).

The treatment given was methotrexate in 64.2% as monotherapy, and 21.4% in combination therapy. NSAIDs were prescribed in 98.2%. Prednisone was prescribed at low doses (~7.5 mg/day) in 14.2%

The level of pain/discomfort assessed through EQ-5D dimension was significantly higher in the seropositive group in comparison with the seronegative group.

No other differences were detected between these groups (see Table).

Abstract AB1297 – Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>No problems</th>
<th>Some problems</th>
<th>Pain/discomfort*</th>
<th>Disability (HAQ&gt;0.8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%))</td>
<td>(n=17)</td>
<td>(n=9)</td>
<td>(n=17)</td>
<td>(n=17)</td>
</tr>
<tr>
<td>Family history of RA</td>
<td>16 (94.1)</td>
<td>5 (55.5)</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>16 (94.1)</td>
<td>6 (66.6)</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>DAS28, median (IQR)</td>
<td>3.7 (2.9–3.9)</td>
<td>3.9 (3.3–4.4)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Van der Heijde-modified Sharp score, mean (SD)</td>
<td>93.4 (13.0)</td>
<td>110.2 (7.8)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>EQ5D-3L</td>
<td>5.5 (5.5)</td>
<td>5.5 (5.5)</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.04

RD rheumatic diseases; DAS-28 disease activity score; HAQ Health Assessment Questionnaire.

Conclusions: The prevalence with negative RF is high in the community studied, however, no differences were observed in the variables studied, except in pain.

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Disclosure of Interest: None declared

PREVALENCE OF RHEUMATIC DISEASES IN COLOMBIA BY CITY
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Background: Knowledge of the prevalence of rheumatic diseases allows us to design public health strategies for their comprehensive care and reduction of the costs derived from the potential complications of these diseases.

Objectives: To describe and compare the prevalence of rheumatic disease between six cities from Colombia.

Methods: The study was developed according the COPCORD epidemiological strategy designed for the identification, prevention and control of rheumatic diseases in developing countries.

A cross-sectional analytical study including individuals older than 18 years was designed with a calculated sample size of 6528 people (2336 from Bogotá, 1220 from Medellín and Cali each, 746 from Barranquilla, from Bucaramanga and Cúcuta each one). Prevalence of each rheumatic disease was compared between the evaluated cities from Colombia.

Results: A total of 6693 individuals from six cities of Colombia were evaluated. The average age was 46.40±18.35 and 4423 (64%) individuals were women. The cities with the highest frequency of positive COPCORD population were Bogotá 36.44%, (n=21813), Cali 19.1% (n=945) and Medellín 15.9% (n=789).

Abstract AB1298 – Figure 1

The majority of musculoskeletal pain manifested by the population correspond to non-specific muscular discomfort (MMNE). Osteoarthritis (OA) is the most prevalent rheumatic disease (10.81%, 95% CI, 9.68–12.06%). Mechanical low back pain was the most frequent disease in Barranquilla, with a prevalence of 11.91%, mainly in men 15.9% (95% CI, 11.24–21.92%). Regarding to rheumatoid arthritis (RA) it was more prevalent in women, between 40 and 59 years. It was found to...
be more prevalent in Bogotá (2.8%, 95% CI, 1.8%–4.1%), Cali (4.2%, 95% CI, 2.4%–7.3%) and Barranquilla (1.5%, 95% CI, 0.65%–3.23%). Table 1.

COPCORD*: Community Oriented Program for Control of Rheumatic Diseases

Conclusions: Prevalence of rheumatic diseases is higher in the cities of Bogotá, Cali and Medellín. In Bogotá, Cali and Barranquilla, RA was more prevalent. Low back pain was found to be more prevalent in Barranquilla. The hypothesis is that ethnic diversity of Colombia could explain the difference in prevalence of the rheumatic disease among separate regions.

Disclosure of Interest: None declared


AB1299

FUNCTIONAL CAPACITY MEASURED BY HAQ IN PATIENTS WITH RHEUMATIC DISEASES IN COLOMBIA

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Background: Functional capacity is an important indicator of quality of life that is affected in different pathologies and is susceptible to intervention in early stages once it is recognised. In rheumatic diseases, functional limitation has a great impact that is evidenced by multiple degrees of long-term disability.

Objectives: To evaluate the functional capacity in different rheumatic diseases by HAQ (Health Assessment Questionnaire) instrument.

Methods: In the context of the prevalence study of rheumatic disease in Colombia, the assessment of functional capacity was measured by using the HAQ score, where functional limitation is scored in a range from 0 to 3 points according to the severity of limitation. The major functional limitation is scored 3 and not limitation 0.

A total of 4020 individuals answered the questionnaire.

Results: Patients with rheumatic diseases (n=2274) reported a greater degree of limitation compared with disease-free people (n=1104) or non-rheumatic patients (n=642) (p<0.001). Especially patients with rheumatoid arthritis (RA) had the worst score (0.88±0.72) compared to 0.06±0.22 and 0.01±0.14 of the population (n=642) (p<0.001). The HAQ score in the remaining diseases was 0.67 (SD ±0.62) for systemic lupus erythematosus (SLE); 0.59 (SD ±0.58) for osteoarthritis; 0.59 (SD ±0.58) for fibromyalgia (FM) 0.56 (SD ±0.57) and spondylarthritids (SpA) 0.52 (SD ±0.43).

Disclosure of Interest: None declared


AB1300

COMORBIDITIES IN PATIENTS WITH RHEUMATIC DISEASES IN COLOMBIA

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Background: Patients with systemic autoimmune conditions often develop concomitant disease contributing to a higher mortality than in the general population. An early diagnosis and treatment is fundamental to improve the life expectancy of this population.

Objectives: The objective of this study was to describe the frequency of concomitant disease in patients with rheumatic diseases.

Methods: Based on data from the population studied under the COPCORD strategy, in the prevalence of rheumatic disease in Colombia, the frequency of non-rheumatic diseases in patients with rheumatic diseases was described in 6 cities of Colombia (Bogotá, Medellín, Cali, Barranquilla, Bucaramanga and Cúcuta).

Results: From a total of 4020 individuals, 2274 rheumatic patients were identified. Sixty nine percent of the Colombian patients with rheumatic disease (n=1571) had some comorbidity. The most frequent was hypertension (HBP) in 20.95% (n=330), followed by migraine 19.11% (n=300) and venous insufficiency 17.69% (n=278). Seventeen percent had any mental disorders, of which, anxiety and depression were the most common (n=273).

Other comorbidities like obesity (8.1%), diabetes (5.85%), heart disease (5.79%) and cerebrovascular disease (1.99%) were less common among rheumatic patients. The frequency of cancer was low 1.48% (n=23).

Disclosure of Interest: None declared


Abstract AB1299 – Figure 1. Diagram of cities surveyed as COPCORD* positive

Abstract AB1300 – Figure 1. Most frequent comorbidities in rheumatic patients

Conclusions: Hypertension is the most common comorbidity in patients with rheumatic diseases in Colombia. Screening and diagnosis in early stages of HBP is important, since it is the main modifiable cardiovascular risk factor. The goals of pharmacological and non-pharmacological treatment are essential to reduce the risk of coronary heart disease, stroke and end-stage renal disease. Additionally, migraine is the second most frequent disease that affects the patient’s quality of life. And venous insufficiency should be taken into account by primary care physicians in order to assure a complete health care assessment.

Disclosure of Interest: None declared