Conclusion: Efficacy response to the therapy with IXE was observed in both subgroups based on disease duration (<5 and ≥5yrs) with more robust responses in the ≥5yrs subgroup.

REFERENCES:


Figure 1. ASAS40 Response Rates for patients with r-axSpA (COAST-V/W) and nr-axSpA (COAST-X) Symptom Duration <5 and ≥5 years up to Week 52, ITT, NRI: Significantly greater response of IXE versus PBO at Week 16 (p<0.001). Abbreviations: PBO, placebo; IXE, ixekizumab; NRI, non-responder imputation; ITT, Intent-to-Treat (population), ASAS, Assessment of Spondyloarthritis International Society.

Table 1. Patient demographics and Baseline Characteristics

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Pts with r-axSpA</th>
<th>Pts with nr-axSpA</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤5yrs (N=33)</td>
<td>33 (1.85)</td>
<td>45.1 (12.12)</td>
</tr>
<tr>
<td>5-10yrs (N=306)</td>
<td>31.9 (10.07)</td>
<td>46.4 (11.86)</td>
</tr>
<tr>
<td>&gt;10yrs (N=111)</td>
<td>32.5 (6.97)</td>
<td>32.5 (6.97)</td>
</tr>
</tbody>
</table>

Abbreviations: IXE=ixekizumab, n=number of pts in specified category, Ns=number of pts in each subgroup, SD=standard deviation.
We examined: 1. the total effect of latitude on age at diagnosis at hospital and country level (Main model); 2. the amount of the total effect that is mediated by patient factors at the patient and hospital level (Model A); and 3. the amount of the total effect that is mediated by country factors at the country level (Model B). In each model we disentangle the effect in different measurement levels. For example, a patient level variable can vary at the patient, hospital and country level.

Results: We included 39,782 patients nested in 94 hospitals nested in 17 countries. The mean age at diagnosis per country ranged from 39 to 55 years. The study spanned a range of latitude between 9.9 and 55.8 degrees (i.e. from Nigeria to the United Kingdom). In the main model, we confirmed the association between latitude and age at diagnosis and found that it only occurred at the country level (not at the hospital level). Per degree increase in country latitude, the average age at diagnosis per country increased by 0.23 years (95% credibility interval 0.07; 0.40). At the hospital level however, this effect was negligible: β=0.040 (0.16; 0.00) path coefficients for latitude and several patient factors were found at the country level, but these patient factors only associated with age at diagnosis at the patient level, not at the country (or hospital) level (Model A). This means patient-factors did not explain the association between latitude and age at diagnosis at the country level (main effect changed from 0.23 before to 0.37 after inclusion of patient factors). In model B latitude associated with most country factors (except GDP per capita). Even though none of these variables separately were significantly associated with age at diagnosis, inclusion of the set of country level factors reduced the country level effect of latitude on age at diagnosis from 0.23 to almost zero: β=0.003 (-0.51; 0.37). Sensitivity analyses with age at symptom onset as outcome provided similar results.

Conclusion: Patients living close at the equator indeed get RA far earlier than those living closer to the poles. We here suggest that, rather than due to variation in patients’ characteristics, this latitude gradient is a country level phenomenon explained by indicators of countries’ socioeconomic status, and not by patient specific genetic or environmental factors. This big data analysis in a worldwide prevalence cohort provides a direct link between countries’ levels of welfare and the onset of RA.

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CLINICALLY SUSPECT ARTHRALGIA PATIENTS WITH A LOW LEVEL OF EDUCATIONAL ATTAINMENT HAVE AN INCREASED RISK TO DEVELOP INFLAMMATORY ARTHRITIS

S. Khidr1, E. Van Mulligen1,2, A. Van der Helm-van Mil1,2. 1Leiden University Medical Centre, Leiden, Rheumatology, Leiden, Netherlands; 2Erasmus Medical Centre, Rheumatology, Rotterdam, Netherlands

Background: Cross-sectional studies on educational levels have shown that inflammatory arthritis (IA) and rheumatoid arthritis (RA) are more prevalent among people with a lower educational attainment. Studies on educational attainment in individuals at risk for RA could shed light on the influence of socioeconomic factors on RA development, which is divided in an asymptomatic and symptomatic pre-RA stage. To our knowledge, longitudinal studies on educational attainment and IA-development in symptomatic individuals at risk of RA are lacking.

Objectives: To determine the association between educational attainment and progression from clinically suspect arthralgia to IA and to perform mediation analysis to elucidate underlying mechanisms.

Methods: 600 consecutive patients presenting with clinically suspect arthralgia were followed for the development of IA, identified at joint examination by rheumatologists during median follow-up of 25 months. Educational attainment was defined as low (lower general secondary education), medium, or high (college or university education). Contrast enhanced 1.5T MRI of hand and foot were made about where and when people use healthcare services before an RA diagnosis. We estimated the monthly healthcare use for patients with RA and reference persons from the Danish general population without RA, listed in the same general practice and with the same age and sex. Healthcare use was defined as: daytime face to face contacts to general practice, contacts to private practicing physiotherapists. We estimated the monthly healthcare use for patients with RA and reference persons in the 12 months preceding the diagnosis, and we compared their healthcare use by incidence rate ratios (IRR) for each month, adjusted for socioeconomic factors on the development of RA is warranted.

Objectives: To explore the pattern in use of healthcare services during the 12 months preceding a diagnosis of RA in Denmark.

Methods: We conducted a population-based cohort study using data from Danish national registries. For every patient diagnosed with RA in 2014-2018 we matched ten reference persons from the Danish general population without RA, listed in the same general practice and with the same age and sex. Healthcare use was defined as: daytime face to face contacts to general practice, contacts to private practicing physiotherapists. We estimated the monthly healthcare use for patients with RA and reference persons in the 12 months preceding the diagnosis, and we compared their healthcare use by incidence rate ratios (IRR) for each month, adjusted for socioeconomic factors on the development of RA is warranted.

Background: Increased use of healthcare services before an RA diagnosis can be seen as a proxy for symptom presentation and the actions taken by healthcare professionals, and thus indicate an opportunity for earlier diagnosis. However, little is known about when and when people use healthcare services before an RA diagnosis.

Objectives: To identify when people use healthcare services before an RA diagnosis.

Methods: Patients with RA had more contacts to general practice and physiotherapists than reference persons. Patients with RA had statistically significantly more contacts during all 12 months before the diagnosis date. IRR increased from 1.25 (95% CI: 1.19-1.30) to 2.63 (2.55-2.71) during the study period. Patients with RA also had statistically significantly more contacts to physiotherapists compared to their references throughout the entire study period, and increasing contact rates from eight months before the diagnosis. This was primarily driven by more contacts in women with RA compared to their references. Patients with RA had more contacts to general practice and physiotherapists in all 12 months preceding the RA diagnosis compared to references and these contact rates increased further the last six to eight months in patients with RA. This indicates symptom presentation for several months before the RA diagnosis.