AB0290

LOWER EDUCATIONAL LEVELS ARE ASSOCIATED WITH A HIGHER RISK OF RHEUMATOID ARTHRITIS IN A SOUTHERN EUROPEAN NESTED CASE-CONTROL STUDY

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Objectives: To investigate the association between socioeconomic status (SES) on an individual level and incident RA

Methods: EPIC is a multicentre, pan-European prospective cohort study of apparently healthy populations. We undertook a nested case-control study to investigate risk factors for RA, by identifying incident RA cases (pre-RA) and matched controls amongst subjects enrolled in four EPIC cohorts in Italy and Spain. The lifestyle, environmental exposure, anthropometric information and blood samples were collected at baseline. Confirmed pre-RA cases were matched with controls by age, sex, centre, and date, time and fasting status at blood collection. The exposure was SES as measured by level of educational attainment categorised as university (referent), secondary school/technical/professional school, primary school completed, and none. The primary outcome was incident RA. Conditional logistic regression (CLR) analysis was adjusted for ACPA seropositivity, smoking status, and presence of shared epitope (SE). A further model also adjusted for other potential confounders, including body mass index (BMI), waist circumference, physical activity, and alcohol intake.

Results: The study sample included 398 individuals of which 99 individuals went on to subsequently develop RA. In this analysis, time to diagnosis (defined as time between date of blood sample and date of diagnosis), was 6.71 years (SD 3.43).

A significant positive association was observed with level of educational attainment and RA incidence (secondary/technical vs university: OR 5.60, 95% CI 1.59–19.7, primary school vs university: OR 5.06, 95% CI 1.45–17.6, no education vs university: 7.11, 95% CI 1.37–36.8; p for trend 0.02) independent of ACPA seropositivity, SE and smoking).

A significant positive association between level of educational attainment and RA incidence was confirmed in the fully adjusted model (secondary/technical vs university: OR 5.52, 95% CI 1.53–19.9, primary school vs university: OR 4.87, 95% CI 1.38–17.1, no education vs university: OR 6.48, 95% CI 1.21–34.6; p for trend 0.02).

Conclusions: Lower educational levels were independently associated with higher risk of incident RA in this European Mediterranean population.

Disclosure of Interest: None declared

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AB0291

IDENTIFICATION OF JOINT LOCATIONS THAT ARE POOR PROGNOSTIC INDICATORS AND REQUIRE MORE INTENSIVE THERAPY IN AN EARLY, RAPIDLY PROGRESSING RA COHORT: A POST HOC AGREE ANALYSIS

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Background: Patients (pts) with early RA often present with multiple areas of involvement. Limited data exist to identify which specific joints or joint locations may be indicative of poorer prognosis and require more intensive initial therapy.¹

Objectives: This analysis investigated which joint locations have the poorest prognosis and compared clinical response rates between abatacept (ABA)+MTX and MTX monotherapy by baseline (BL) swollen joint status for specific joint locations.

Methods: Data from AGREE (NCT00122382), a double-blind Phase III study of ABA+MTX (n=256) vs MTX (n=253) in biologic-naïve pts with early (≤2 years [yrs]) erosive RA, were analysed by BL swollen joint status (present, absent) for 8 different joint locations: hands, wrists, elbows, shoulders, jaw, knees, ankles and feet. Overall characteristics and study results were reported previously.² Swelling was evaluated at BL and after 6 months (mths) of treatment. Differences between treatment groups in clinical response endpoints (i.e. DAS28 [CRP]<2.6, SDAI≤3.3, CDAI≤2.8, Boolean and HAQ remission ≤0.5 at 6 mths) and swelling resolution at 6 mths were assessed by BL swollen joint status, for each joint location.

Results: In an early RA cohort of pts at risk of active, rapidly progressing disease, the proportions of pts (n=509) with a swollen joint at BL were 99% hand, 92%

wrist, 79% ankle, 69% knee, 66% foot, 48% elbow, 34% shoulder and 9% jaw. Pts with a swollen jaw (n=45) had more tender joints (mean [SD] 40.0 [15.1] vs 30.1 [14.1]), more swollen joints (35.9 [13.3] vs 21.1 [9.5]), higher total Sharp score (9.4 [10.1] vs 6.9 [9.1]) and longer disease duration (11.7 [9.2] yrs vs 6.0 [6.9] yrs) than those without jaw swelling (n=464). Higher HAQ-DI was seen in pts with a swollen knee or shoulder (1.8 [0.6] vs 1.5 [0.7] and 1.9 [0.6] vs 1.6 [0.7], respectively). Presence of BL synovitis was not associated with greater BL anti-citrullinated protein antibodies or RF positivity, probably due to the inclusion of mainly seropositive pts.

In general, absence of BL swelling was associated with higher clinical response at 6 mths, both for ABA+MTX and MTX. Independent of BL swollen joint status, ABA+MTX had higher clinical response rates (DAS28, SDAI, CDAI, Boolean and HAQ remission) than MTX, except for the non-swollen wrist. Overall mean Boolean remission rates were 13.7% for ABA+MTX vs 5.5% for MTX with difference in proportions (95% CI) of 8.1% (2.6, 13.7) (p=0.003). The largest difference in Boolean remission rate (95% CI) favouring ABA+MTX was 9.6% (4.2, 15.1) (p<0.001) in pts with a swollen wrist at BL (figure 1). Difference in swollen joint resolution between ABA+MTX and MTX was most pronounced for pts with a swollen hand (mean [95% CI]: 42.7% [36.7, 48.8] vs 27.9% [22.4, 33.4], respectively).

Abstract AB0291 – Figure 1. Treatment Group Comparisons of Boolean Remission Rates in Pts with BL Swollen Joint by Joint Location (Proportion [95% CI]).

Conclusions: BL swelling in the shoulder, knee and jaw is associated with a more severe RA profile. Remission rates were higher with ABA+MTX than MTX when BL swelling was present, especially in the wrist. Also, swollen joint resolution was more pronounced with ABA+MTX, especially in the hands.

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Disclosure of Interest: P. Durez Speakers bureau: Bristol-Myers Squibb, Eli Lilly, Sanofi, S. Robert Employee of: Bristol-Myers Squibb, A. Thiry Employee of: Bristol-Myers Squibb, H. Ahmad Shareholder of: Bristol-Myers Squibb, Employee of: Bristol-Myers Squibb

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AB0292

AUTOANTIBODIES TO A NOVEL PEPTIDE UH-RA.1 ARE ASSOCIATED WITH DISEASE REMISSION IN RHEUMATOID ARTHRITIS

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Background: Autoantibodies have been found in the majority of RA patients and are used clinically as diagnostic and prognostic serum biomarkers. Before truly personalised medicine is available for RA patients, markers that can predict a patient's response to different therapeutic regimens have to be found. In this study, we further characterise autoantibodies to the novel University of Hasselt