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OP0182

IN RA PATIENTS IN REMISSION, WHICH BIOMARKERS PREDICT SUCCESSFUL TAPERING OF CSDMARDS?

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Background: Recommendations for the management of patients with RA who achieve stable clinical remission ≥ 6 months with conventional synthetic (cs) disease-modifying anti-rheumatic drugs (DMARDs) are to taper (with the aim of potentially stopping), although there are currently no validated biomarkers permitting prediction of sustained remission.

Objectives: To assess the rate of sustained remission over 12 months in RA patients in remission, who received either (i) structured tapering of csDMARDs or (ii) continuation of current therapy, focusing on the value of imaging and immunological biomarkers as well as patient-reported outcome measures (PROs).

Methods: RA patients (n=200) prospectively attending a remission clinic, fulfilling DAS28(3v)CRP ≤ 2.6 for ≥ 6 months on stable csDMARD therapy (mono or combination therapy & no corticosteroids) were included. Patients were offered the choice of structured cs-DMARD tapering according to a pre-defined protocol (Table 1) or remaining on stable therapy. Clinical, ultrasound (US), immunological (T-cell subsets) and PRO data were collected at inclusion. Loss of remission was defined as increase of DAS28(3v)CRP > 2.6 . Mann-Whitney-U and Chi-square tests were used to compare outcomes. After imputing missing data, regressions for predicting sustained remission were performed. AUROCs were used to compare models.

Results: The decision to taper treatment was associated with male gender, longer remission duration, normal CRP and lower grey scale scores (p<0.05). Of those who tapered 64% (75/117) remained in clinical remission at 12 months, compared to 80% (66/83, p=0.018) of patients who remained on stable treatment. At 15 months 11/117 (10%) had successfully stopped therapy.

In the tapering group, higher CRP, TJC and IRC were consistently associated with inability to sustain remission, as well as higher scores for several PROs (p<0.05) with a trend for total PD (P=0.066). Predicting sustained remission was modelled and retained RAQoL, total PD and a T-cell subset (Figure 1, 85% accuracy, AUROC 0.872).

In the non-tapering group, higher CRP/ESR, SJC and shorter disease duration (p<0.05) were associated with flare. No parameter was able to predict sustained remission.

Conclusion: In patients who chose to taper, the combination of clinical, PRO, US and T-cell parameters demonstrated added value for predicting sustained remission (85% accuracy) compared to clinical parameters alone. Different biomarkers were associated with sustained remission on continued therapy. These data may assist with informed tapering of csDMARDs.

Table 1. csDMARD tapering schedule

Drug	Baseline Dose	Taper 1	Taper 2	Taper 3	Taper 4	Taper 5
Hydroxychloroquine	200mg bd	200mg od	Stop	-	-	-
Hydroxychloroquine	200mg od	Stop	-	-	-	-
Sulfasalazine	1.5g bd	1g bd	1.5g od	500mg bd	500mg od	Stop
Sulfasalazine	1g bd	1.5g od	500mg bd	500mg od	Stop	-
Sulfasalazine	500mg bd	500mg od	Stop	-	-	-
Sulfasalazine	500mg od	Stop	-	-	-	-
Methotrexate	25mg/week	15mg/week	7.5mg/week	No change	Stop	-
Methotrexate	15mg/week	7.5mg/week	No change	Stop	-	-
Methotrexate	7.5mg/week	No change	Stop	-	-	-

NB: Patients were seen 3-monthly. If they remained in remission following tapering, they proceeded to the next taper unless there is a significant clinical reason not to taper at the time of assessment (as per standard care). Order of cs-DMARD tapering applies to patients on dual/triple therapy. All but 5 (112) were on methotrexate.

Figure 1. AUROC Analysis of tapering cohort data

Disclosure of Interests: None declared

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OP0183

IDENTIFICATION OF A SUBGROUP OF PEOPLE WITH RHEUMATOID ARTHRITIS CHARACTERISED BY HIGH DISABILITY OVER 10 YEARS, DESPITE LOW INFLAMMATION: RESULTS FROM TWO EUROPEAN PROSPECTIVE COHORT STUDIES

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Background: Long-term studies in rheumatoid arthritis (RA) have reported low inflammation yet high disability over time. It is important to determine which factors are driving this disparity, so appropriate interventions can be used to reduce this gap.

Objectives: To identify a subgroup of people with RA with low inflammation yet high disability over 10 years, and describe their characteristics.

Methods: Data came from two cohorts of inflammatory arthritis with regular assessments over 10 years: the Norfolk Arthritis Register (NOAR, inclusion: ≥ 2 swollen joints for ≥ 4 weeks) from the UK and the *Etude et Suivi des Polyarthrites Indifférenciées Récentes* study (ESPOIR, inclusion: early RA) from France. Participants provided demographic data and completed patient reported outcomes (PROs, including the Health Assessment Questionnaire [HAQ]). The 2-component Disease Activity Score (DAS28-2C)¹, a measure of inflammation, was