Rheumatoid arthritis - prognosis, predictors and outcome

AB0217 MANAGEMENT OF RHEUMATOID ARTHRITIS THERAPIES IN TELECONSULTATION

Keywords: Rheumatoid arthritis, Telemedicine

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Background: Therapeutic adjustment is of major importance in the treat to target strategy proposed for rheumatoid arthritis (RA). This aspect can be challenged in teleconsultation given the multiplicity of treatments, efficacy/ safety issues of RA therapies and the absence of clinical examination. These could lead the physician to prefer modifying the treatment in face-to-face visit rather than in teleconsultation.
Objectives: To evaluate how clinicians adapted RA therapies in teleconsultation.
Methods: Retrospective monocentric routine care cross-sectional study conducted in the Rheumatology department of Cochin Hospital. We reviewed electronic medical report (EMR) to identify all teleconsultations performed by telephone or video consultation in a 2-year period and extract data of interest. We compared treatment adaptation performed in teleconsultation to treatment adaptation that requested a face-to-face visit following teleconsultation. Treatment adaptation was defined by the introduction of a new treatment, modification of treatment dose and/or route or discontinuation of the treatment. This treatment adaptation may be motivated by efficacy or safety issues. Different treatment classes were considered: corticosteroids, methotrexate and targeted biologic/ synthetic therapies (b/tsDMARDs).
Results: We included 187 patients (150 females, 80%) who had a teleconsultation performed, with a mean age of 56±16 years and a disease duration of 13±11 years. Positive rheumatoid factor and positive anti-CCP pantibodies were detected in 125 (67%) and 139 (74%) patients respectively. 96 patients (51%) had erosive disease. A total of 56 therapeutic adaptations were collected: 34 were performed in teleconsultation and 22 requested face-to-face visits (**Table 1**). Demographics and RA disease characteristics did not differ between patients who had therapeutic adaptations performed during teleconsultation or during face-to-face visits. Corticosteroid and methotrexate were more likely to be adapted in teleconsultation compared to face-to-face visits (16/34, 47% vs 2/22, 9%, p=0.003 and 15/34, 44% vs 1/22, 5% p=0.002, repectively). Interestingly, methotrexate was adapted in teleconsultation for both efficacy and safety issues, leading do dose increase/reduction, switch from oral to subcutanous route, or drug discontinuation. In the other hand, targeted therapies were preferentially initiated or modified during face-to-face visits which all included clinical examination, lab tests and power doppler ultrasounds (19/22, 86% vs. 3/34, 9%, p<0.001).
Conclusion: Corticosteroids and methotrexate were mainly adaptated in teleconsultation without requesting a face-to-face visit, supporting their flexibility in teleconsultation and clinician's confidence in their use, even at a distance from the patient. In the other hand, b/tsDMARDs were preferentialy adapted in face to face consultation, highlighting the need of a careful evaluation of disease activity by clinical examination before modifying this class.

Table 1. Therapeutic adaptations performed in teleconsultation or in face-to-face visits

	Adapted therapy	Adaptation	Cause
Teleconsultation (n=34)	Corticosteroids (n=16)	Introduction (n=3)	Disease flare
		Dose increase (n=7)	Disease flare
		Dose reduction (n=6)	Low disease activity or remission
	Methotrexate (n=15)	Introduction (n=3)	Active disease
		Dose increase (n=2)	Active disease
		Swith from oral to SC (n=3)	Active disease (n=2), nausea (n=1)
		Dose reduction (n=2)	Increased liver enzymes (n=1) and asthenia (n=1)
		Discontinuation (n=5)	Asthenia (n=3), nausea (n=2)
	b/tsDMARDs (n=3)	Introduction of JAKi (n=1)	Active disease
		JAKi dose reduction (n=2)	Age (n=1) and CV risk factors (n=1)
Face-to-face visits (n=22)	Corticosteroids (n=2)	Corticosteroid infusion (n=2)	Active disease
	Methotrexate (n=1)	Swith from oral to SC (n=1)	Active disease
	b/tsDMARDs (n=19)	Introduction (n=3)	Active disease
		Swith to a new b/tsDMARD (n=16)	Active disease

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AB0218 RHEUMATOID ARTHRITIS OUTCOMES: A MULTICENTRE CROSS-SECTIONAL STUDY OF PATIENTS IN IRELAND (CONTEXT-RA)

Keywords: Remission, Patient reported outcomes, Quality of life

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Background: Despite increasing treatment options for RA, many patients still do not appear to achieve remission, especially in more established disease.[1]
Objectives: To evaluate disease outcomes and quality of life (QoL) of DMARD treated patients with RA in clinical remission (CR) in routine Irish rheumatology clinics vs those with residual disease activity.
Methods: A multicentre, cross-sectional study with a 9-month recruitment period (Mar-Nov 2021). Demographics, disease activity, patient reported outcomes, comorbidities, workability & healthcare resource utilisation (HRU) data were collected. Patients on a stable dose of any DMARD (> 3 months) were classified according to disease activity state as follows:

- Responder group 1 (RG1) CR (CDAI≤2.8)
- Responder group 2 (RG2) CR/ Low Disease Activity (LDA) (CDAI>2.8 -10) &
- Non-responders (NR) moderate/high disease activity (CDAI>10)

Results: 130 RA patients were recruited (Table 1). 69% were female, mean age of 60.1 yrs and disease duration of 11.5 yrs. There was no significant difference in seropositivity between responder and non-responder groups (~75% RF+, ~69% ACPA+), 69% were treated with advanced therapy (biologic/targeted synthetic DMARDs), primarily TNFi's.

- 26% of patients were in CR, 32% in LDA & 42% NR. Significant differences in QoL-primary endpoint were noted between CR/LDA patients vs NR group. The difference in QoL index score (EQ5D-5L) for patients in CR and LDA vs those in remission alone, suggest QoL is considerably higher in patients in CR compared even to those in LDA.
- Joint pain (VAS), fatigue (FACIT-F) and function (HAQ-DI) scores all yielded strong negative correlations, indicating that CR/LDA patients had significantly better outcomes than those with MDA/HDA (Figure 1). A similar pattern was seen amongst patients in CR vs LDA, although significance was not achieved.
- In addition, more impaired productivity was noted in NR vs CR/LDA regarding ability to work and perform regular 'non-work' activities.
- Comorbidities were common, affecting over 90% of the non-responder group and 74% of patients in CR. The NR group had higher proportions of patients with cardiac, gastrointestinal, psychiatric and vascular disorders vs patients in CR/LDA.
- With respect to HRU, more patients in the NR group required medical visits for both RA and non-RA reasons vs patients in CR/LDA.
- Of the 54 patients in MDA/HDA, the study found there was a plan to add or switch DMARD, for only 32% of patients.

Table 1. Patient Characteristics

	RG1 1 N=34	RG 2 N=76	NR N=54
Age Mean (SD), yrs	57.1 (12.91)	57.6 (13.13)	63.7 (13.00)
Female, mean N (%)	23 (67.6)	51 (67.1)	38 (70.4)
Duration of disease, yrs, mean (SD)	12.1 (10.5)	11.2 (11.4)	11.3 (11.02)
Comorbidities, n (%)	25 (73.5)	36 (85.7)	49 (90.7)
Employed^, n (%)	19 (55.8)	37 (48.6)	11 (20.3)
Employment sick leaves due to RA^*, mean (SD)	0.3 (0.58)	0.3 (0.57)	0.6 (1.21)
Smoking status: Never smoked, n (%)	17 (50.0)	35 (46.1)	18 (33.3)
Alcohol Units, mean (SD)	4.0 (5.98)	3.3 (6.31)	3.8 (6.05)
Disease Activity (CDAI score)	1.21 (0.883)	4.06 (3.088)	19.46 (11.162)

^ Patients in either full or part time employment *Sick leave in the past 6 months

Figure 1. Patient reported outcomes across pain, fatigue and function

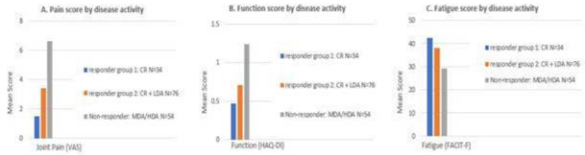

Figure 1a-c. Patient reported outcomes per disease activity state. **A.** Patients assessment of worst joint pain measured by VAS. 0 means no joint pain and 10 means worst possible joint pain. **B.** Function scores as measured by HAQ-DI. HAQ-DI is the sum of scores in the 8 categories divided by 8. Scores are adjusted for the use of aids/devices and/or help. The higher the score, the worse the patients functioning. **C.** Fatigue scores (FACIT-F). FACIT F score is the sum of individual item scores multiplied by 13 & divided by number of items answered. The higher the score the lower the level of reported fatigue.
Responder group 1 CDAIs≤2.8. Responder group 2 CDAI <10. Non responder group CDAI>10.

CDAI: clinical disease activity; CR: clinical remission, HDA: high disease activity, LDA low disease activity; MDA moderate disease activity

Conclusion: Overall, these data support the treat-to-target approach of striving for remission in RA, with important differences reported between non-responder & responder groups 1 & 2 but additionally between patients achieving CR vs LDA. The relatively low % of non-responder patients with a documented 'action plan', suggests improved approaches to shared decision making are warranted for patients not yet at the agreed target.

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AB0219

LONG-TERM OUTCOMES OF METHOTREXATE IN ELDERLY-ONSET RA IMPLEMENTING THE TREAT-TO-TARGET STRATEGY

Keywords: Outcome measures, Rheumatoid arthritis, Disease-modifying drugs (DMARDs)

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Background: Continuation of methotrexate (MTX) treatment is recommended in both MTX responder and non-responder elderly-onset RA (EORA) patients. However, there are insufficient data on its effectiveness and long-term safety, although we have previously reported that a treat-to-target (T2T) strategy targeting low disease activity (LDA) is safe and effective in the prospective CRANE cohort study of MTX-naïve EORA patients [1, 2].

Objectives: To identify factors predicting failure to achieve LDA by month 6 in EORA patients starting MTX, and effectiveness and safety of MTX over 5 years in MTX responders and non-responders.

Methods: MTX-naïve patients (mean age 73.8 years, n=163) from the CRANE cohort [2] had started MTX with moderate-to-high disease activity. Maximum dose of MTX was 0.19±0.06 mg/week/kg with folate supplementation. Treatment was adjusted to target LDA. Treatment intensification using biological disease-modifying antirheumatic drugs (bDMARDs) for EULAR-unresponsive patients by month 3 and moderate-high disease activity at month 6 was applied. MTX non-responsiveness was defined as no LDA and/or initiation of bDMARDs by month 6. Primary outcomes were achievement of Simplified disease activity index (SDAI) LDA and discontinuation of MTX due to adverse events (AEs). Secondly outcomes were achievement of remission and Health Assessment Questionnaire Disability Index (HAQ-DI) ≤0.5, and incidence of serious AEs.

Results: At week 24, 77 (47.2%) patients achieved LDA without bDMARDs (MTX responders), and of the remaining 86 (MTX non-responders), 35 (21.5%) had started bDMARDs by month 6 and 51 (31.3%) had moderate-to-high disease activity on MTX at week 24. At baseline, MTX non-responders had longer disease duration, higher SDAI and HAQ-DI, higher prevalence of erosion score ≥2 (modified total sharp score) and chronic lung disease (CLD), but baseline glucocorticoid use was similar. Multivariable analysis identified CLD as a predictor of MTX non-responsiveness. Regarding long-term outcomes, 14 (18.2%) of the 77 MTX responders and 55 (64%) of the 86 MTX non-responders received intensified treatment with bDMARDs within 5 years. MTX was continued in 65 (94.2%) of the 69 patients at the start of bDMARDs. The Cumulative rate of MTX discontinuation due to AEs was similar in MTX responders and non-responders (34.0% and 33.1%) as was the time to discontinuation of MTX due to AEs. The time to discontinuation of MTX for any reason was also similar. SDAI LDA and HAQ-DI ≤0.5 achievement by year 5 applying the last observation carried forward (LOCF) method was 92.2% and 74.0% respectively for MTX responders and 77.9% and 53.5% for MTX non-responders, respectively (p=0.011 for SDAI LDA and 0.007 for HAQ-DI). SDAI remission at year 5 by LOCF was similar (62.6% and 52.3% in MTX responders-vs-non responders). The time to serious AEs was also similar, as was the cumulative incidence of serious AEs over the 5 years was 32.6% and 44.3% in MTX responders-vs-non-responders.

Conclusion: CLD was a predictive factor of non-achievement of LDA by month 6 in EORA patients starting MTX, and early application of bDMARDs may be adequate for treating EORA with CLD at baseline. The 5-year long-term outcome for MTX responders was excellent, and continuation of MTX was tolerable even in MTX non-responders. Treatment intensification on MTX could be an optimal T2T strategy for EORA.

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