THURSDAY, 15 JUNE 2017

Rheumatoid arthritis - non biologic treatment

THU0168 | **PATIENTS' POSITIVE BELIEFS AND CERTAINTY PREDICT METHOTREXATE ADHERENCE IN A RHEUMATOID ARTHRITIS COHORT: THE RAMS STUDY**

H.F. Hope [1], K. Hyrich [2], F. Varney [3], S. Wilkes [3], S.M. Verstappen [2], L. Cordingley [4]. [1]*NIHR Manchester Musculoskeletal Biomedical Research Unit, Centre for Musculoskeletal Research;* [2]*Arthritis Research UK Centre for Epidemiology;* [3]*Division of Psychology and Mental Health;* [4]*Centre for Musculoskeletal Research and Dermatological Science, University of Manchester, Manchester, United Kingdom*

Background: Living with RA confers substantial uncertainty about the long-term outcomes of the disease and the occurrence of possible medication associated adverse events (ADEs). This latter uncertainty may be particularly apparent when new therapies are initiated and reduce patient adherence.

Objectives: The aim of this study was to evaluate whether patients' negative and/or uncertain illness beliefs during methotrexate (MTX) therapy are associated with adherence.

Methods: This was a sequential mixed-methods design study using data from the Rheumatoid Arthritis Medications Study (RAMS). RAMS is a 12 month observational study in the UK recruiting patients with RA commencing MTX for the first time. Clinical and demographic data were collected at baseline and patients were asked to complete a weekly diary recording MTX intake (adherence) and reasons for not taking MTX. In addition there was a free text section in the diary where patients could comment about any aspect of their disease or care. Six month diary data were used for the purpose of this study.Patients were categorised as non-adherent if the proportion of adherent weeks was <90%.

Phase 1:Using a random sample (n=50/417) of patient diaries with free text comments a coding system was developed to categorise illness events and beliefs contained in these data. Inter-rater reliabilities for codes rated by three judges were calculated using intraclass correlation coefficients (ICC) and unreliable codes (ICC<0.6) dropped.

Phase 2:179 of 200 diaries from adherent and non-adherent individuals were randomly selected, coded and categorised into illness belief profiles (IBPs) by three researchers blind to adherence data.Univariate logistic regression analyses adjusted for age and gender were used to investigate the association between IBPs and MTX non-adherence behaviour (<90% adherence).

Results: Phase 1: ten codes with ICCs ranging from 0.6–1.0 were used to create three IBPs (Table):"Positive & Certain" (PC), "Negative & Certain" (NC) and "Negative and Uncertain" (NU) (Fig.).

Phase II, the median age of the sample was 62 [51.8–65.6] years, 67% were women and the median disease activity score was 4.3 [3.4–5.2]. Being PC lowered the odds of non-adherence (OR 0.32, 95% CI 0.12–0.85), being NU increased the odds of non-adherence (OR 2.7, 95% CI 1.0–7.0), but being NC didn't associate with non-adherence during the first six months of therapy (OR 0.98, 95% CI 0.31–3.2).

Table 1. The reliability (ICC) of codes that contribute to the IBPs

IBP	Codes	ICC (95% CI)
Positive	Treatment response	0.73 (0.60–0.83)
	ADE cessation	0.79 (0.68–0.87)
	Positive emotion	0.77 (0.65–0.85)
	Positive attribution	0.60 (0.44–0.74)
Negative	Disease flare	0.93 (0.89–0.96)
	ADE	0.81 (0.71–0.88)
	Severity attribution	0.62 (0.46–0.75)
	Negative emotion	0.81 (0.71–0.89)
	Negative attribution	0.81 (0.71–0.88)
Certainty/Uncertainty	Certainty/Uncertainty	1.0 (1.0–1.0)

Positive & Certain (N=89)	Negative & Certain (n=148)	Negative & Uncertain (n=35)
"Pain has reduced in my joints this week"	"Methotrexate too strong, however in lot of pain in knees"	"I think the cramp may be the HCQ not the MTX"
"Can write with right hand"	"Pain is still unbearable and (MTX) not working"	"It may be the flu injection what has give me side effect"\
"Wrists much less painful"	"Ankle and wrist still painful and inflamed"	"Fingers and wrist quite painful & lots of pins and needles. Due to heat?"
"Not feeling any side effects"	"Methotrexate had no effect at all at this stage"	"Upset stomach, ate out, so could have been that?"
"Feeling better this week"	"Same as last week seems to be worse"	"Swelling of wrist-knee don't know if tabs caused it"
"Almost all pain gone - whoopee!"	"Stomach ache and nausea much worse after every meal"	"Difficult to tell if MTX side effects, still ill"

Figure. Examples of patient comments that contributed to each IBP

Conclusions: People who are uncertain about how to attribute illness events are less likely to adhere within the first six months of starting MTX therapy. Encouraging patients to actively monitor their progress with therapy and providing them with support to understand likely effects of MTX may help optimise DMARD use.

THU0169 | **ONE-THIRD OF PATIENTS WITH RHEUMATOID ARTHRITIS ELIGIBLE FOR A FIRST BIOLOGIC ARE NOT ADHERENT TO METHOTREXATE: RESULTS OF FORGET, A CROSS-SECTIONAL SURVEY OF 244 PATIENTS**

C. Beauvais [1], V. Hautin-Monteil [2], M.-C. Ducrot [3], R.-M. Flipo [4]. [1]*Rheumatology Department, Saint Antoine Hospital, APHP, Paris;* [2]*Roche;* [3]*Agence A+A, Boulogne-Billancourt;* [4]*Rheumatology department, Roger Salengro Hospital, Lille, France*

Background: Adherence to Methotrexate (MTX) is not optimal in patients with rheumatoid arthritis (RA)[1]. Low adherence may lead to insufficient response and unjustified initiation of biologics.

Objectives: The objectives were 1-assess the self-reported adherence rate to MTX of RA patients insufficient responders to MTX (MTX-IR) when an initiation of biologics was being considered 2- Investigate the factors of low adherence among these patients 3- collect the physicians' estimation of their patients' adherence level.

Methods: Patient recruitment was done through rheumatologists: RA patients, MTX-IR, biologic-naive, eligible for a biologic according to the rheumatologist's opinion. The rheumatologist completed a questionnaire on his practice and estimation on the patient's level of adherence and provided the patient with a self-administered questionnaire on his disease and treatments, to be sent directly to the data center. The patient's questionnaire contained the CQR19 (Compliance Questionnaire for Rheumatology [2]. The purpose of assessing adherence was not specified to the patient.

Results: From May to July 2016, 78 rheumatologists recruited 269 patients who referred 244 self-administered questionnaires, 214 assessed for CQR 19 score; 200 questionnaires were completed by both patients and their rheumatologist. Patients were 72% women, mean age 54 years, 58% had at least 1 comorbidity, mean DAS28 score 4.07, mean RAID score 5.7/10. The percentage of non-adherent patients was 34%: adherence rate <80% according to the CQR.

Non-adherent patients had a higher RAID score (5.7 vs 5.0; p<0.01) whereas DAS 28 was not significantly different (4.14 vs 4.04). They more often presented osteoporosis (18% vs 4%, p<0.01), reported reluctance to take treatment (40% vs 24%, p<0.01), had more negative beliefs (40% vs 24%; p<0.01), and poor support from relatives (67% vs 84%, p<0.011). Good-adherent patients were more often followed in a private practice (31% vs 10%, p<0.01) and reported more information received from their rheumatologist (94% vs 85%, p<0.05). No correlation was found between adherence and age, subcutaneous versus oral route of administration or perceived tolerance.

88% of rheumatologists reported they detect adherence at every consultation, asking direct (76%) or open (46%) questions. Adherence was underestimated by rheumatologists: a 67% concordance was found between the rheumatologist's rating and the patient's reported adherence. Non-adherent patients to MTX were more often proposed biologic treatment in combination with MTX than patients with good compliance (91% vs 68%, p<0.01).

Conclusions: This survey showed for the first time that 34% of MTX-IR patients show poor adherence to MTX at the time of the initiation of a first biologic. Negative beliefs and poor support from relatives are factors of non-adherence. Studies will be needed to understand physicians' attitudes toward non-adherence and what strategy of biologics prescription they are likely to consider.

References:
[1] DiBenedetti D Rheumatol Ther 2015.
[2] de Klerk E et al, J Rheumatol 1999.

THU0170 | **OUTCOMES OF THE RAPID DOSE ESCALATION OF METHOTREXATE IN JAPANESE PATIENTS WITH EARLY RHEUMATOID ARTHRITIS; RESULTS FROM A RANDOMIZED CONTROLLED TRIAL**

M. Tsutsumino [1], R. Sakai [1], M. Kihara [2], K. Amano [3], R. Yoshimi [4], M. Inoo [5], H. Dobashi [6], T. Sugihara [7], T. Hidaka [8], H. Kohsaka [2], N. Miyasaka [2], M. Harigai [1]. [1]*Tokyo Women's Medical University;* [2]*Tokyo Medical and Dental University, Tokyo;* [3]*Saitama Medical Center, Saitama;* [4]*Yokohama City University School of Medicine, Yokohama;* [5]*Utazu Hospital;* [6]*Kagawa University, Kagawa;* [7]*Tokyo Metropolitan Geriatric Hospital, Tokyo;* [8]*Shiminnomori Hospital, Miyazaki, Japan*

Background: Methotrexate (MTX) is the anchor drug for treatment of rheumatoid arthritis (RA), but tolerance to MTX is substantially different across ethnics and few studies have assessed efficacy and safety of rapid dose escalation regimen of MTX in Japanese patients with early RA.