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AB0265

OPIOIDS AND ANALGESIC USE IN EARLY RHEUMATOID ARTHRITIS: A LONGITUDINAL ANALYSIS OF LINKED REAL-WORLD PRESCRIPTION DATA

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Background: Large numbers of patients with rheumatoid arthritis (RA) receive regular opioids despite significant toxicity and a lack of evidence supporting their use in non-cancer pain. In order to address this situation, we need to understand when opioids are started in early RA where this has not been studied.

Objectives: To examine the temporal trend of opioid prescriptions before and after RA symptom onset and to compare this with DMARD and NSAID prescriptions.

Methods: RA participants (cases) were recruited as part of the Scottish Early Rheumatoid Arthritis (SERA) inception cohort¹. Controls without RA (five per case), matched for sex, age and post code over the same time period, were obtained through routine data linkage. Prescription data between Jan 2009 to Nov 2019 of cases and matched controls were compared using date of RA symptom onset as reference point. The Prescriptions Per Participant (PPP) for each three-month block was estimated by dividing the number of prescribed drugs in the selected drug classes (assigned using the British National Formulary) in that time block by the number of participants in each group. The differences between mean PPP of the RA cases and controls in each time block were tested by t-test for independent groups and subsequent adjustment for multiple testing.

Results: 1,720,335 prescriptions were available for analysis with 421,961 items for 950 RA cases and 1,299,374 items for 4,558 matched controls. As expected,

DMARD prescriptions in the SERA cases increased after the symptom onset period and were then sustained (Figure 1: top left panel). NSAID prescriptions in RA cases peaked during the 3 months after symptom onset and then reduced progressively (top right panel). Opioid analgesic prescriptions for the RA cases increased two-fold during the reference period and then reduced 6-9 months post-symptom onset. However, unlike NSAIDs, after this there was no further significant reduction in opioid prescriptions in the RA cases, which remained stable and significantly higher than in the controls for the remaining study period. The non-opioid analgesic mean PPP increased sharply at the time of symptom onset, with a steady gradual upward trend over time (lower right panel).

Conclusion: Opioid prescriptions increase significantly at the time of RA symptoms onset. Despite rapid introduction of DMARDs and resultant reductions in NSAIDs, analgesic use remains significantly higher than in controls. Further research is required to identify the factors associated with persistent opioid use in early RA with interventions aimed at the first 6 months.

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AB0266

METHOTREXATE AND CARDIOVASCULAR RISK IN RHEUMATIC DISEASES: A COMPREHENSIVE REVIEW

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Background: The management of inflammatory rheumatic disease has evolved in the last decade with the importance of the management of comorbidities. Methotrexate is the cornerstone of inflammatory rheumatic disease management, but its cardiovascular effects are still poorly understood.

Objectives: To assess the cardiovascular impact of methotrexate in inflammatory rheumatic disease.

Methods: A systematic review of the literature, following the prisma recommendations, was performed on the PubMed and Embase databases with the following keywords: ("Methotrexate") AND ("cardiovascular"). We included papers written in English and including patients older than 18 years.

Results: 570 references were identified and, 36 articles were kept for analysis. The mechanism of action of methotrexate lies mainly on the antagonism of purines. It reduces systemic inflammation, oxidative stress.

In Rheumatoid arthritis, the use of methotrexate was associated with a decreased incidence of high blood pressure, an improvement of the lipid profile and of the insulin resistance. Major adverse cardiovascular events were decreased with methotrexate. The effects of methotrexate on the endothelial

function were more controversial and available data did not argue for a direct vascular effect of MTX in RA.

In psoriatic arthritis, evidences were more scarce. A meta-analysis showed that methotrexate was associated with a reduction of cardiovascular events in patients with psoriatic arthritis. In psoriatic arthritis, methotrexate did not improve the endothelial function.

In plaque psoriasis, available data were rare. The use of methotrexate in this condition was not associated with a reduction of cardiovascular events. Nevertheless, a decrease in circulating VCAM-1 and in E selectin levels was described with the use of methotrexate.

In HIV infection, a model of pro inflammatory state, the use of methotrexate did not change the endothelial function and thus the cardiovascular events.

Finally, in general population, the use of methotrexate did not decrease the occurrence of cardiovascular events after a myocardial infarction.

Conclusion: The cardiovascular effects of methotrexate are poorly understood at this time. Nevertheless, it seems clear that methotrexate can reduce the occurrence of cardiovascular events in inflammatory disease. The mechanisms explaining this good issue are poorly understood, but it seems possible that the essential effect of methotrexate lies in the reduction of the inflammatory syndrome without a direct vascular impact.

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AB0267

HOW EFFECTIVE IS PAIN MANAGEMENT IN THE PATIENTS' OPINION? DATA FROM THE COMPAS STUDY

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Objectives: to evaluate the effectiveness and satisfaction of pain management in patients with rheumatic diseases (RD) according to a survey in the COMPAS (Quality of Pain Management according to Patients with Arthritis and Back pain) study.

Methods: the survey involved 1040 patients with RD (rheumatoid arthritis-40.6%, osteoarthritis -32.1%, spondyloarthritis-10.6%, connective tissue diseases-8.6% of patients). 76.8% were women, the mean age was 55.8±14.0 years. 35.7% of patients continued to work in their specialty, 31.6% had various degrees of disability. The effectiveness of pain therapy was evaluated by the patient in the last month preceding the survey on a 5-point scale, where 1 - no effect and 5-excellent effect. Patients' satisfaction with treatment, possible reasons for the lack of effectiveness of pain therapy and the use of additional treatment tools were also evaluated.

Results: as therapy for the underlying disease, 40% of patients received conventional disease modifying antirheumatic drugs, 33.1% - glucocorticoids, 7.2% - biological agents and 15.2% - symptomatic slow-acting drugs in osteoarthritis. At the same time, 68% of patients needed additional analgesic therapy with nonsteroidal anti-inflammatory drugs (NSAIDs). Slightly less than half of the surveyed patients (46.9%) noted a moderate effect of analgesic therapy, 22.7% - a low effect and 5% - no effect, 23.7% rated the effectiveness of therapy as good and only 1.7% - as excellent. At the same time, only 15.6% of patients were completely satisfied with the result of NSAIDs, 64% were partially satisfied with the treatment and 20.4% were completely dissatisfied. As the reason of insufficient effectiveness of NSAIDs, most often (34.3%) patients named fear of adverse events associated with taking drugs, 19.4% - weak drugs, 15.3% - insufficient attention of doctors to complaints, 6.6% - poor diagnosis of the causes of pain. Others found it difficult to answer or were completely satisfied with the treatment. 40% of patients used additional methods, most often chiropractic (12.3%), acupuncture (4.8%), physiotherapy (12.7%) and folk remedies (7.4%).

Conclusion: A significant proportion of patients with RD don't have adequate pain control. Only 25.4% of patients rate the result of treatment as good and excellent, and even fewer patients (15.6%) are completely satisfied with the results of therapy. Thus, a personalized approach to analgesic therapy is necessary, taking into account the expectations of patients regarding the results of treatment.

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AB0268

LOW DOSE TACROLIMUS IS AN EFFECTIVE ADD ON THERAPY FOR PATIENTS WITH ACTIVE RHEUMATOID ARTHRITIS - A SINGLE CENTRE EXPERIENCE

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Background: Rheumatoid arthritis (RA) a chronic inflammatory arthritis requiring tight control of disease activity. While traditional DMARDs have been used effectively, there always remains a need for add on drugs in good number of patients. Tacrolimus since its first approval in 2004 had been used widely as monotherapy and in combination with conventional and biological DMARDs. The primary concern was safety followed by the efficacy for patients with active disease.

Objectives: The main objective was to ascertain the safety and tolerability of patients who were treated with tacrolimus as an add on therapy over and above the standard care in RA.

Methods: A retrospective analysis of patients who were prescribed Tacrolimus from January 2019 to August 2020 was done. Details of patients along with the change in Blood pressure(BP), Serum creatinine, Blood sugar and Clinical disease activity index(CDAI) before and after tacrolimus were analyzed.

Results: A total of 245 patients with active Rheumatoid arthritis received the drug. The mean age was 48.58(1.49) years and the disease duration was 5.9(0.56) years. Of 245 patients, 24 patients were lost to follow up, 103 patients stopped the drug for various reasons and 118 patients are still continuing the drug. The mean tacrolimus dose was 1.24±0.46 mg in the patients who are continuing. The commonest reason for stopping the drug was adverse events (57%) followed by lack of efficacy(29%), low disease activity (8%) and others(7%). There was no significant change in the mean blood pressure, Blood sugars and Creatinine levels in both the stopped and continuing group. However the CDAI and the steroid dosages reduced significantly in the patients who are still on tacrolimus. The lost to follow up group had high disease activity at baseline and also were on higher doses of steroids.

PARAM ETERS	RA – CONTINUING(118)			RA STOPPED(103)			LOST TO FOLLOWUP (24)
	BEFORE TAC	AFTER TAC	p value	BEFORE TAC	AFTER TAC	P value	BEFORE TAC
SBP mm of hg	100.44(9.54)	101.06(9.80)	0.67	103(9.77)	104(9.92)	0.44	127.35(10.05)
DBP mm of hg	66.30(6.26)	67.22(6.37)	0.30	68.44(6.4)	70.43(6.65)	0.07	82.83(5.05)
SUGAR mg	76.43(13.73)	76.67(11.24)	0.95	71.86(10.79)	76.74(14.1)	0.08	89.12(9.7)
S.CR mg	0.55(0.06)	0.56(0.09)	0.80	0.66(0.16)	0.57(0.06)	0.21	0.74(0.06)
STEROID USE mg	2.82(0.41)	1.65(0.54)	<0.001	2.12(0.43)	2.43(0.54)	0.36	2.86(1.42)
CDAI	12.28(1.84)	7.42(1.49)	<0.001	12.23(2.03)	10.49(2.69)	0.07	16.62(3.88)

Conclusion: Low dose Tacrolimus is an effective add on therapy for patients with high disease activity and did not lead to change in serum creatinine, blood pressure or change in blood sugars in the study subjects.

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AB0269

ARE INTERFERON-GAMMA RELEASE ASSAYS RELIABLE TO DETECT TUBERCULOSIS INFECTION IN PATIENTS WITH RHEUMATOID ARTHRITIS TREATED WITH JANUS KINASE INHIBITORS?

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Background: The therapeutic armamentarium for patients with rheumatoid arthritis (RA) has recently been enriched with the family of Janus kinase (JAK) inhibitors. Because the risk of reactivation of latent tuberculosis infection (LTBI) following the use of these drugs seems to be similar to that seen with anti-TNF agents, screening for LTBI is recommended in patients with RA before starting