AB0239

EFFECTS OF DYSMETABOLISMS AND COMORBIDITIES ON THE EFFICACY, SAFETY AND RETENTION RATE OF BIOLOGICAL DMARDS (BDMARD) IN INFLAMMATORY JOINT DISEASES.

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Background: bDMARDs have an effect on glucose homeostasis (1), lipoproteins profile (2; 3) and blood pressure (4). However, with the exception of obesity (5; 6), there are no clear data on how bDMARDs work in patients who already have or develop metabolic comorbidities and whether these conditions can impact on their efficacy and safety profile.

Objectives: to evaluate, in chronic inflammatory joint diseases, the effect of arterial hypertension (AH), dyslipidemia (DYS) and diabetes mellitus (DM) on efficacy, safety and retention rate of first-line bDMARDs therapy.

Methods: a retrospective observational study on the clinical charts of Rheumatoid Arthritis (RA), Psoriatic Arthritis (PsA) or Ankylosing Spondylitis (AS), treated with first on-label bDMARD was performed. Data on adverse events, efficacy and comorbidities at the baseline visit in which the bDMARD was prescribed (BL), the visit performed after 6 months of therapy (6M), and the last visit on treatment (LoT) were collected.

Results: 383 patients (41,8% RA, 33,4% PsA and 24,8% AS) were included in the study, with the predominance of females (F: 67,36%, M: 32,64%; mean age 51,67 ± 15,11 years). Our data show that the presence of comorbidities had no influence on efficacy of bDMARD, while patients who had DHS at BL manifested a higher rate of systemic adverse events either in the first 6 months of therapy (58,9% vs 43,7%, p=0,040) and also later on (80,36% vs. 66,67%, p=0,046). In addition, patients who developed DHS and AH after the 6M visit reported a higher rate of systemic adverse events at LoT visit, compared to others (DYS: 97,8% vs 66,7%, p<0,001; AH: 86,9% vs 65,2%, p=0,031). For what concerns the retention rate, patients who developed DHS or AH during bDMARD treatment continued the drug for a longer period of time (DYS 95,5 vs 19,6 months, p<0,001; AH 72,1 vs 23,4 months, p<0,001). In particular, patients with AH who concomitantly carried out therapy with ACE-inhibitors (ACEi) and/or angiotensin II receptor blockers (ARB) continued bDMARDs for nearly 20 more months than patients who were not exposed to these drugs (40,5 vs 23,4 months, p=0,001) and more frequently maintained the bDMARDs at LoT (59,42% vs. 47,53%). In case of withdrawal in the ACEi/ARB exposed cohort, this was due to well-being and disease remission rather than inefficacy or adverse reaction (p=0,025). In dyslipidemic patients treated with statins, data showed that bDMARDs were continued for a longer time than in DHS patients treated with other anti dyslipidemic therapies (41,09 vs. 26,50 months, p=0,042).

Conclusion: our data suggest that AH and DHS may be associated with higher frequency of adverse events but a better drug retention. The combination of bDMARD and ACEi/ARB may determine a better control of the inflammatory process by inhibition of angiotensin II, favouring the achievement of remission. In AH patients on bDMARDs, ACEi and ARB could therefore represent an useful anti-hypertensive drug choice. Similarly, statins could be the treatment of choice in DHS patients.

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AB0240

EXAMINING THE RELATIONSHIP BETWEEN RHEUMATOID ARTHRITIS, MULTIMORBIDITY AND ADVERSE HEALTH-RELATED OUTCOMES: A SYSTEMATIC REVIEW

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Background: Rheumatoid arthritis (RA) is a chronic autoimmune disorder characterised by inflammation of the synovial joints causing pain, swelling and stiffness. Multimorbidity (the presence of two or more long-term conditions) affects approximately two thirds of people with RA. However, the relationship between RA and multimorbidity is poorly understood, as is the effect of this relationship on mortality and other health-related outcomes, particularly those relating to physical functioning and well-being.

Objectives: To explore existing literature to determine what is known about the effect, if any, of multimorbidity on mortality and other health-related outcomes in people with RA.

Methods: A systematic review was conducted following a protocol prepared using PRISMA-P 2015 reporting guidelines, ensuring the quality of the review. Studies were sourced from electronic medical databases, specifically MEDLINE, Embase, CINAHL, PsycINFO, The Cochrane Library and Scopus, using a pre-defined search strategy. Studies were selected based on specified eligibility criteria and quality appraised using the Cochrane Prognosis Methods Group-developed, Quality in Prognostic Studies (QUIPS) tool. A narrative synthesis of findings was conducted.

Results: In total, 15 studies fulfilled our criteria for inclusion in our review. Of these, 7 studies had mortality as an outcome, with 6 reporting a significant association between multimorbidity and increased risk of all-cause mortality in people with RA. Nine studies had functional status/disability as an outcome, with 2 of these studies also including quality of life. All 9 studies reported significant associations between multimorbidity and the aforementioned health-related outcomes, demonstrating poorer functional status/increased disability and reduced quality of life in people with RA and multimorbidity.

Conclusion: Multimorbidity in people with RA is significantly associated with increased mortality and poor health-related outcomes in current literature. A better understanding of this relationship will provide an important foundation of knowledge to guide future health service design.

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AB0241

PREVALENCE OF ANXIOUS SYMPTOMS AND DEPRESSION IN A SAMPLE OF PATIENTS WITH RHEUMATOID ARTHRITIS (RA) AND OTHER CHRONIC RHEUMATIC DISEASES

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Background: Clinical practice with patients suffering from chronic diseases highlights the presence of psychological symptoms of discomfort fed by biological and non-biological mechanisms linked to disease and treatment. In rheumatic diseases, literature detects the presence of anxious symptoms and depressed mood of clinical and sub-clinical importance with a multifactorial genesis¹.

Objectives: To detect the impact on the state of health of anxious symptoms and depressed mood in a population suffering from RA and other rheumatic diseases in order to implement the effectiveness of psychological intervention through the selection of patients who present critical levels of discomfort.

Methods: Patients afferent to the Rheumatology outpatient clinic of Mauriziano Hospital have been screened from May 2018 to July 2018 with two self-administered questionnaires: HADS-A and HADS-D (Hospital Anxiety and Depression Scale), specifically developed for the evaluation of anxious and depressive symptoms in medical pathologies, and HAQ (Health Assessment Questionnaire) to explore functional disability. Data about rheumatic diagnosis and socio-demographic characteristics were also collected. Data were analyzed with descriptive statistics; the Student Test and the ANOVA test were used to evaluate prevalence and to compare the presentation of symptoms in the different diseases and the Pearson correlation coefficient was used to evaluate the relationship between symptoms and disability.

Results: A total of 427 subjects were screened (317 females and 110 males), aged between 19 and 90 years (mean 60 ± 14 yrs). 156 subjects (36.5%) had a diagnosis of RA, 76 (17.8%) of psoriatic arthritis, 42 (9.8%) of ankylosing spondylitis, 14 (3.3%) of systemic lupus erythematosus and 139 (32.6%) of other rheumatic diseases (including Sjogren, osteoarthritis, fibromyalgia).

A high prevalence of anxious symptoms and depressed mood has been found and the number of subjects reporting scores indicating a clinically relevant

uncomfortable situation (HADS ≥ 11) was also relevant (Table 1); an increased prevalence in female patients was observed. There were no differences in the presentation of symptoms between RA and the other included pathologies (Table 2).

Table 1. Prevalence of anxiety and depression according to the HADS questionnaire in rheumatic diseases

	Mean	SD
HADS-A	7.56	4.63
HADS-D	7.12	4.59
HADS-A Score	N	%
0-7	224	52.4
7-10	84	19.7
11-21	119	27.9
HADS-D Score	N	%
0-7	231	54.1
7-10	92	21.5
11-21	104	24.4

Table 2. Comparison between RA and other rheumatic diseases in anxiety and depression symptoms presentation (ANOVA test).

		N	Mean	SD	SE	CI
HADS-A	RA	156	2.34	5.20	0.41	1.52
	PsA	76	2.30	4.47	0.51	1.28
	AS	42	1.51	3.19	0.49	0.51
	SLE	14	1.77	3.74	1.00	-0.38
	other	139	2.46	5.08	0.43	1.61
HADS-D	RA	156	1.74	3.51	0.28	1.19
	PsA	76	2.03	4.21	0.48	1.07
	AS	42	0.69	0.54	0.08	0.52
	SLE	14	0.93	0.68	0.18	0.54
	other	139	1.68	3.79	0.32	1.04

There was a positive and significant correlation between anxious symptoms or depressed mood and functional disability (0.49 and 0.60 respectively, $p < 0.01$).

Conclusion: The results show a significant presence of uncomfortable situations that could evolve in a psychopathological sense. The discomfort expressed through anxious and depressive symptoms is related to the level of functional disability. Recognizing the presence of psychological distress allows to orient the treatment plan and facilitate the patient's adaptation to the disease condition.

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AB0242

SURVIVAL ANALYSIS IN THE DEVELOPMENT OF SERIOUS INFECTIONS AND SERIOUS RESPIRATORY INFECTIONS IN AR PATIENTS INCLUDED IN A VACCINATION PROGRAM

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Background: Rheumatoid arthritis is an autoimmune disorder in which patients have an increased risk of development of serious infections. This risk may be augmented due to RA itself and to immunosuppressive drugs, specially biologic therapy. Vaccination programs may change this condition.

Objectives: Our aim in this study was to evaluate the incidence of serious infections in a vaccinate RA patients cohort.

Methods: Prospective study of 401 patients diagnosed with RA who were invited to participate in the vaccination program of the Preventive Medicine department of our hospital from October 2011 to October 2016. The follow up was made until June 2017 with a minimum follow-up period of 8 months and maximum of 5.5 years. Serious infections were defined as those that required hospitalization or at least one dose of intravenous antibiotic treatment at emergency room. Information was retrieved from the hospital records.

Only 7 patients refused vaccination (2%). Information was not obtained in 4 of the remaining 394 patients. Therefore, these 4 patients were not included in the assessment.

Survival analysis was assessed by Kaplan-Meier method.

Results: We finally studied 390 patients (307♀/83♂) mean age $\pm$ SD 61.28 $\pm$ 12.9 years that participate in the vaccination program and followed-up. The main features at the time of vaccination were: median disease duration (4 years), positive rheumatoid factor (56.7%), subcutaneous nodules (4.9%), erosive arthritis (36.9%), pulmonary fibrosis (3.8%), secondary Sjögren syndrome (5.1%), other extraarticular manifestations (14.6%) and rheumatoid vasculitis (5.6%). Most patients had received immunosuppressive drugs before the vaccination program. The most frequently used were systemic corticosteroids (n=228), methotrexate (n=362) and biologic agents (40.3%).

During the follow-up, 42 patients (10.7%) had required hospital admissions due to infections, 17 of them were severe respiratory infections (4.35%). The remaining 25 admissions were in the setting of urinary tract infections (n=12), intraabdominal infections (7), skin and soft tissues (12) and articular (1). Also 12 of these patients had a zoster herpes.

After a median follow-up of 1061.89 $\pm$ 417 days, the incidence of serious infection, with a CI (95%), was 4.00 (2.95-5.41) for 100 patients yearly. Concerning to admissions due to serious respiratory infections, with a CI (95%), was 1.55 (0.9-2.47) for 100 patients yearly. **Images 1 and 2.**

Image 1. Survival analysis on serious infections

Image 1. Survival analysis on serious respiratory infections

Conclusion: In this study we can conclude that our RA vaccinated patients present a decrease of the incidence of serious infections, similar to other published cohorts. The incidence of serious respiratory infections shows a decrease even lower to other published cohorts. The vaccination program seems to be effective to prevent hospital admissions due to infections.

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