POS0899

HIGH FATIGUE SCORES IN PATIENTS WITH IDIOPATHIC INFLAMMATORY MYOPATHIES: A MULTIGROUP COMPARATIVE STUDY FROM THE COVAD E-SURVEY.

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Background: Idiopathic inflammatory myopathies (IIM) are a rare, multisystem, heterogeneous diseases, and contribute to high psychological burden. The patients' perception of physical health, deteriorating independence and social and environmental relationships may not always be a direct function of disease activity. To face with these aspects, several worldwide specialized organization have recommended the use of patient reported outcome measures (PROMs) both in clinical trials and observational studies to highlight patient's perception of the disease (1). Unfortunately, data on fatigue scores in IIM is limited.

Objectives: We compared fatigue VAS scores in patients with IIM, autoimmune diseases (AIDs) and healthy controls (HCs) and triangulated them with PROMIS physical function in a large international cohort made up of answers from the e-survey regarding the COVID-19 Vaccination in Autoimmune Diseases (COVAD) study.

Methods: Data of 16327 respondents was extracted from the COVAD database on August 31th 2021. VAS fatigue scores were compared between AID, HC and IIM using univariate followed by multivariate analysis after adjusting for baseline differences. We further performed a propensity score matched analysis on 1827 subjects after adjusting for age, gender and ethnicity. The Kruskal-Wallis test was used for continuous variables and chi-square test for categorical variables, and Bonferroni's correction was applied for the post hoc analyses considering IIMs as a reference group.

Results: We analyzed answers from 6988 patients, with a mean age of 43.8 years (SD 16.2). The overall percentage of female was 72% and the population ethnicity was mainly composed of White (55.1%), followed by Asian (24.6%), and Hispanic (13.8%). The overall fatigue VAS was 3.6 mm (SD 2.7). IIMs VAS was 4.8 mm (SD 2.6), AIDs 4.5 mm (SD 2.6), and HC 2.8 mm (SD 2.6) (P <0,001). VAS fatigue scores of IIMs were comparable with AIDs (P 0.084), albeit significantly higher than the HCs (P <0,001). Notably, fatigue VAS was lower in IIMs than AIDs in two distinct subsets: inactive disease as defined by the patient's perception and the "excellent" general health condition group, where IIMs had worse scores (P <0,05). Interestingly, fatigue VAS was comparable in active disease defined by physician assessment, patient perception, based on general functional status, or when defined by steroid dose being prescribed. Notably, after propensity matched analysis of patients adjusting for gender, age and ethnicity (1.827 answers, i.e. 609 subjects per group, P =1) the differences disappeared and IIMs and AIDs had comparable fatigue levels across all levels of disease activity, although the fatigue discrepancies with HCs were substantially confirmed. After application of a multivariate linear regression analysis we found that lower fatigue VAS scores were related to HC (P <0,001), male gender (P <0,001), Asian and Hispanic ethnicities (P <0,001 and 0,003).

Conclusion: Our study confirms that there is a higher prevalence of fatigue in all the AIDs patients, with comparable VAS scores between IIMs and other AIDs. We can also read our data commenting that females and/or Caucasians patients suffer a higher impact of this manifestation of chronic autoimmune diseases upon their lives. This is why these subjects, to our judgement, should be carefully evaluated during outpatients visits and to whom we should spend some extra time to discuss health related issues and how to improve them.

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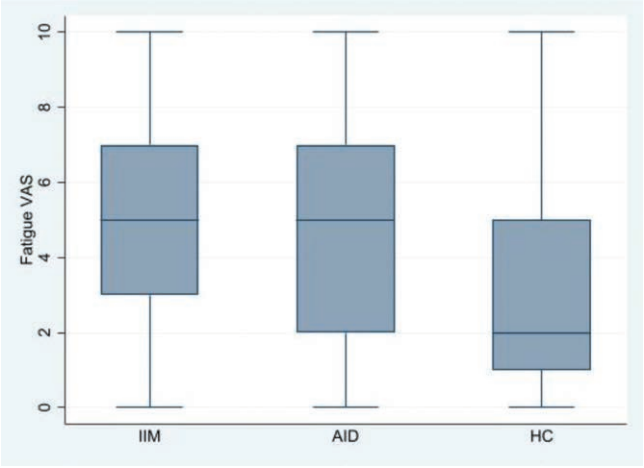

Figure 1. distribution of Fatigue VAS scores in the three population evaluated. IIM idiopathic inflammatory myositis; AID autoimmune diseases; HC healthy controls; * P < 0,05.

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POS0900

SYSTEMIC PHARMACOLOGICAL TREATMENT OF DIGITAL ULCERS IN SYSTEMIC SCLEROSIS: A SYSTEMATIC LITERATURE REVIEW

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Background: Digital ulcers (DU) are common in systemic sclerosis (SSc) and associated with reduced survival, high morbidity and poor quality of life. Recommendations have previously been proposed for DU management yet there remains significant unmet patient need. Therefore the World Scleroderma Foundation DU Working Group intends to develop practical evidence based recommendations for DU management.

Objectives: To summarise data on efficacy and safety of systemic treatments for SSc DU.

Methods: A systematic literature review to May 2021 was performed. PubMed, MEDLINE, Embase, Web of Science, Cochrane Library, Emcare (OVID) and Academic Search Premier databases were searched for original studies on adult patients with SSc DU treated with systemic pharmacological treatment. Based on the PICO framework, eligibility criteria were defined and references were independently screened by two reviewers. Reviewers independently assessed the full text of eligible articles. Owing to interstudy heterogeneity narrative summaries were used to present data.

Results: The search strategy identified 1271 references of which 45 eligible articles were included. Seventeen studies were randomised placebo controlled trials (RCT) pertaining to PDE5 antagonists (PDE5i) (n=3), endothelin receptor antagonists (ERA) (n=3), prostanoids (n=7), antiplatelet agents (n=1) and other (n=3) (Table 1). No head to head RCT was retrieved. All other studies were observational studies (OBS). Studies were highly heterogeneous with application of differing definition of DU, variable study eligibility criteria, clinical endpoints and follow up periods. This limited the calculation of effect size and comparison across studies.

Table 1. Characteristics of placebo controlled randomised controlled trials

Author Year	Intervention	n	Follow up	Outcome	Favours intervention
Hachulla 2016	Sildenafil	83	12 weeks	Time to DU healing	-
Andrigueti 2017	Sildenafil	41	12 weeks	DU healing	+
Shenoy 2010	Tadalafil	24	6 weeks	New DU	+
Khanna 2016	Macitentan	554	16 weeks	New DU	-
Matucci-Cerinic 2011	Bosentan	188	32 weeks	New DU Time to healing of DU	+-
Korn 2004	Bosentan	122	12 weeks	New DU	+
Kawald 2008	IV iloprost	50	12 months	DU healing	-
Wigley 1992	IV iloprost	35	10 weeks	DU healing	+
Wigley 1994	IV iloprost	73	9 weeks	50% reduction in DU score	-
Seibold 2017	Treprostinil	148	20 weeks	Net DU burden	-
Vayssairat 1999	Beraprost	107	25 weeks	% patients with new DU	-
Denton 2017	Selexipag	74	12 weeks	Number of new DU DU healing	-
Lau 1993	Cicaprost	33	4 weeks	Number of DU	-
Abou-Raya 2008	Atorvastatin	84	4 months	Number of DU	+
Au 2010	Cyclophosphamide	158	12 months	Number of patients with DU	-
Beckett 1984	Dipyridamole / aspirin	41	2 years	Change in general SSc	-
Nagaraja 2019	Riociguat	17	32 weeks	Net DU burden	-

+ significantly superior to comparator- non significantly different from comparatorDU: digital ulcers IV: intravenous SSc: systemic sclerosis

Several RCT found improved DU healing with treatment: two with PDE5i, one with iloprost and one showed improved DU healing and prevention with atorvastatin. Two RCT demonstrated effective prevention of new DU with bosentan. OBS studies with a total of 621 patients showed variable improvements in the healing of DU with CCB, PDE5i, ERA, statins, N-acetylcysteine, prostanoids and ketanserin and prevention of new DU with ERA. Regarding safety, all treatments were generally tolerated with few serious adverse events. Treatment was ceased in 6.25-17.5% of patients in RCT due to treatment related side effects.

Conclusion: Despite several studies assessing the efficacy and safety of systemic pharmacological treatment of SSc DU, it is not possible to draw solid conclusions due to study heterogeneity. Small RCT have shown treatment benefit with PDE5i, iloprost and atorvastatin. Large studies demonstrated effective prevention of new DU with bosentan. Our results highlight the urgent need for improved clinical trial design to generate more robust evidence and novel therapies to guide the management SSc DU.

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POS0901 INTERSTITIAL LUNG DISEASE IN MIXED CONNECTIVE TISSUE DISEASE: CLINICAL AND SEROLOGICAL ASSOCIATIONS

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