**P070** PATIENTS WITH IDIOPATHIC INFLAMMATORY MYOPATHIES SUFFER FROM POOR SELF-REPORTED PROMIS PHYSICAL FUNCTION AFTER COVID-19 INFECTION: AN INTERVIEW-BASED STUDY FROM THE MYOCITE COHORT

Rajat Kharbanda¹, Keya Ganatra², Vikas Agarwal¹ and Latika Gupta³
¹Clinical Immunology and Rheumatology, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, INDIA, ²Graduate Institute of Medical Sciences, Lucknow, INDIA, ³Medicine, KEM and Seth GS Medical College, Mumbai, INDIA

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**Table 1: Comparison of physical health one-month after Covid-19 in IIM patients and HC and vaccination status**

| Variables | 1 month after covid-19 IIM (n=50) | 1 month after covid-19 HC (n=40) | p-value |
|-----------|----------------------------------|---------------------------------|---------|
| Overall physical health n (%) | **Excellent** | Very good | Good | Fair | Poor |
| Fatigue (median:IQR) | 1 (0-5.75) | 0 (0-1) | 0.67 |
| Pain (median:IQR) | 1 (0-6.75) | 0 | |
| Did your health limit you in doing vigorous activities n (%) Not at all Very little Somewhat Quite a lot Cannot do | 5 (10%) | 1 (10%) | 3 (30%) | 1 | 0 | 25 (62.5%) | 8 (20%) | 5 (12.5%) | 2 | 0.47 0.47 0.19 0.55 - |
| Did your health limit you in walking more than a mile (1.6 km) n (%) Not at all Very little Somewhat Quite a lot Cannot do | 6 (12%) | 0 | 1 (10%) | 3 (30%) | 0 | 27 (67.5%) | 9 (22.5%) | 2 (5%) | 2 | 0.65 0.21 0.55 0.03 - |
| Did your limit you in climbing a flight of stairs n (%) Not at all Very little Somewhat Quite a lot Cannot do | 6 (12%) | 0 | 3 (30%) | 1 | 10% | 27 (67.5%) | 10 (25%) | 2 (5%) | 1 | 0.65 0.18 0.03 0.31 - |
| Did your health limit you in lifting or carrying groceries n (%) Not at all Very little Somewhat Quite a lot Cannot do | 7 (14%) | 1 (10%) | 2 (20%) | 0 | 0 | 36 (90%) | 9 (22.5%) | 2 (5%) | 1 | 0.7 0.56 0.14 0.89 - |
| Did your health limit you in bending, kneeling or stooping n (%) Not at all Very little Somewhat Quite a lot Cannot do | 7 (14%) | 0 | 3 (30%) | 0 | 0 | 36 (90%) | 7 (17.5%) | 2 (5%) | 1 | 0.12 0.04 0.02 0.89 - |
| Were you able to do chores such as cleaning the floor or yard work n (%) Without any difficulty With a little difficulty With some difficulty With much difficulty Cannot do | 7 (14%) | 0 | 1 (10%) | 2 (20%) | 0 | 29 (72.5%) | 6 (15%) | 2 (5%) | 3 | (7.5%) | 0.87 0.36 0.12 0.64 0.64 |
| Were you able to dress yourself, including tying shoelaces and buttoning your clothes n (%) Without any difficulty With a little difficulty With some difficulty With much difficulty Cannot do | 8 (16%) | 0 | 1 (10%) | 1 | 0 | 38 (95%) | 2 (5%) | 0 | 0 | 0.14 0.84 0.12 0.12 - |
| Were you able to shampoo your hair n (%) Without any difficulty With a little difficulty With some difficulty With much difficulty Cannot do | 7 (14%) | 1 (10%) | 2 (20%) | 0 | 0 | 40 (100%) | 0 | 0 | 0 | 0.02 0.12 0.04 - - |
| Were you able to wash and dry your body n (%) Without any difficulty With a little difficulty With some difficulty With much difficulty Cannot do | 9 (18%) | 1 (10%) | 0 | 0 | 0 | 40 (100%) | 0 | 0 | 0 | 0.12 0.12 - - |
| Were you able to sit and get up from the toilet n (%) Without any difficulty With a little difficulty With some difficulty With much difficulty Cannot do | 8 (16%) | 1 (10%) | 1 | 0 | 0 | 37 (92.5%) | 1 (2.5%) | 1 (2.5%) | 1 | 0.25 0.55 1.08 - |
| Did you have any symptoms in the month before and after you got COVID19 n (%) None Rashes Generalized fatigue Muscle weakness Fatigue Fingertip ulcers Oral ulcers Joint pain or swelling in hands Joint pain or swelling in other joints Chest pain Shortness of breath Raynaud’s Elevated muscle enzyme in blood (high creatine kinase level) Elevated inflammatory markers in blood (high ESR or CRP) | 4 (8%) | 0 | 1 (10%) | 2 (20%) | 0 | 36 (90%) | 7 (17.5%) | 0 | 0 | 0 | 0.15 0.04 0.38 0.02 0.12 - 0.12 0.05 - 0.009 - - |
| Vaccinated n (%) | Yes | No | 5 (50%) | 4 (40%) | 0 | 3 (30%) | 2 (10%) | 1 (5%) | 0 | 0.007 |
| Type of vaccine n (%) Covishield Covaxin | 5/5 (100%) | 0 | 27/36 (75%) | 9/36 (25%) | 0.56 |
| Number of doses n (%) | 1 2 | 3 | 30% | 2 | 20% | 21 | (52.5%) | 19 | (47.5%) | 0.2 0.1 |
| Received at least 1 dose before covid positive report n (%) | Yes | No | 0 10 (100%) | 21 | (52.5%) | 19 | (47.5%) | 0.03 |
Background/Aims
Patients with rheumatic diseases are known to exhibit worse outcomes with COVID-19. However, the effect on individual diseases such as idiopathic inflammatory myopathies (IIM) remain unexplored.

Methods
A self-report e-survey with 36 questions was pilot tested and validated to cover demographics, history of COVID-19 contact, course and severity of COVID-19 infection, influence of COVID-19 infection on physical state one-month after the infection and vaccination status. Baseline characteristics were retrieved from the MyoCite registry and biobank archive. PROMIS-10a, a validated self-report tool was used to quantify physical function. Age and gender similar healthy controls (HC) were included for comparison.

Results
10 patients of IIM were compared with 40 controls. Fever was the most common symptom reported by both the groups however, fatigue, chest pain, and breathlessness were experienced more by patients of IIM compared to HC. However, severity of COVID-19 infection as substantiated by pneumonia, hospitalization, and oxygen requirement was comparable in IIM and HC, possibly due to small numbers PROMIS physical function was comparable before COVID-19 in both groups, and in HC physical function remained the same a month before and after COVID-19. On the other hand, the physical function deteriorated at 30-days after COVID-19 in the IIM group as compared with their baseline function as well as HC. Specific tasks were more challenging for IIM, including climbing stairs, bending or kneeling and shampooing hair, although the limitation was mild (Table 1). IIM patients were also less likely to be vaccinated, suggesting prevalent hesitancy in this group (50% vs 90%, p: 0.007) (Table 1).

Conclusion
Patients with IIM exhibit increase in fatigue, and dyspnoea during COVID-19 although there is no increase in hospitalisation and had similar disease severity compared to HC. Short term physical function is impacted at 30-days post COVID-19, suggesting the need for closer long-term follow-up. Vaccine hesitancy is prevalent and merits addressing in patients with IIM.

Disclosure
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