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Orthopaedic rheumatology strategic recommendations and practice principles in SARS-CoV-2 Era

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ABSTRACT

WHO declared SARS-CoV-2 as a pandemic disease on 11th March 2020. Due to global lockdown and restricted social movements, there is a rising curve in the morbidity of health of non- SARS-CoV-2 orthopaedic rheumatology patients and an impairment in the functional quality of life necessitating a pandemic response protocol into action in all fields of patient care. The development of ideal strategies and recommendations for the management of orthopaedic rheumatologically predisposed population and principles to be followed in their practice is the need of the hour. We hereby give a comprehensive list of strategies that can be followed in orthopaedic rheumatology practice by encompassing the recommendations given by the European League Against Rheumatism (EULAR), The American College of Rheumatologists (ACR), and Indian Association of Orthopaedic Rheumatology - Indian Orthopaedic Association (IORA-IOA). SARS-CoV-2 pandemic has put enormous pressure on patients with Rheumatic Diseases (RD) due to their innate weakness and shared treatment protocols in management. Though RD needs a multidisciplinary approach, which remains a challenge in this pandemic scenario, these strategic recommendations would aid in their optimal care amidst the adversity of SARS-CoV-2.

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1. Introduction

WHO declared Severe Acute Respiratory Syndrome Corona Virus-2 disease (SARS-CoV-2) as a pandemic disease on 11th March 2020.¹ With the rapid increase in cases, a backlog of non-SARS-CoV-2 patients seeking medical care has become a major burden. Due to global lockdown and restricted social movements, there is a rising curve in the morbidity of non- SARS-CoV-2 patients impairing their quality of life necessitating a pandemic response protocol into action in all fields of patient care.²

In this context of a global health emergency, management of the fragile population suffering from rheumatological diseases is crucial. With a rapid and uncontrolled increase

in the pandemic burden across the globe, the concerns for the health of the rheumatic patients who have an intrinsic predisposition for infection due to the disease pathology and the effect of immunosuppressive therapy are alarming.³ The spectrum of management of the SARS-CoV-2 is now merging in lines of the rheumatological management with the use of drugs such as chloroquine (CQ), hydroxychloroquine (HCQ), and Interleukin-6(IL-6) blockers. These drugs show promising results in managing the cytokine storm due to SARS-CoV-2 infection.^{4,5} Development of ideal strategies and recommendations for the management of this predisposed population and principles to be followed in their practice is the need of the hour.

With interim guidelines and recommendations given by various rheumatological associations and organizations like

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the European League Against Rheumatism (EULAR),⁶ and The American College of Rheumatologists (ACR)⁷ a comprehensive list of strategic recommendations for orthopaedic rheumatology practice was lacking. Here, we present the key strategies, case-based recommendations and practice principles to aid in orthopaedic rheumatology practice in this pandemic scenario. The protocol on case-based recommendations for RD in the SARS-CoV-2 pandemic is shown in Figure 1.

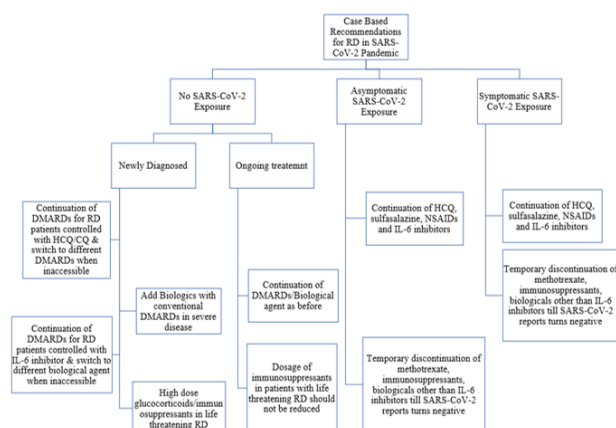


Fig. 1: Protocol on case-based recommendations for RD in SARS-CoV-2 pandemic

2. Early Treatment Strategy

There is no evidence of a high risk of SARS-CoV-2 among patients with a rheumatic disease (RD) compared to the general population.⁸ Early diagnosis and treatment of SARS-CoV-2 in patients with RD can be done by any medical fraternity. The decision on usage of immunosuppressive treatments must be decided by rheumatologists. There is a rapid evolution in the knowledge of immunosuppressive drugs including synthetic disease-modifying antirheumatic drugs (DMARDs) and biologic DMARDs for severe SARS-CoV-2. The availability and distribution of DMARDs for the treatment of patients with RD must be ensured and thereby discouraging the off-label use of DMARDs in SARS-CoV-2.

3. Overarching Recommendations

1. Strict compliance of preventive and control measures for patients with RD
2. When a patient with RD is stable on the current treatment, face-to-face rheumatologist consultations must be deferred.
3. For a patient with active RD on new drug therapy, both patients and rheumatologists must decide upon the visit or seek advice through telemedicine.

4. Strict compliance to infection control and prevention when RD patient has been offered OPD based treatment plans.
5. Self-testing for SARS-CoV-2 when RD patients have been in contact with a SARS-CoV-2 positive patient.
6. RD patients with SARS-CoV-2 symptoms if treated chronically with glucocorticoids, then the treatment must be continued.
7. RD patients with mild SARS-CoV-2 symptoms, changes in DMARDs must be implemented on case to case basis.
8. RD patients with worsening SARS-CoV-2 symptoms must seek an in-patient health care facility for further treatment.
9. RD patients without SARS-CoV-2 symptoms must update their vaccination against pneumococci and influenza
10. Prophylaxis against P.jiroveci to be considered when RD patients are treated with cyclophosphamide or glucocorticoids.
11. Regardless of the SARS-CoV-2 status of the individual, low dose glucocorticoids must be used to control rheumatism.
12. Avoid abrupt stoppage of glucocorticoids
13. Continuation of ACE inhibitors and ARBs in full doses

4. Case-based recommendations

4.1. Ongoing treatment of stable RD patients in the absence of SARS-CoV-2 exposure

Continue DMARDs and NSAIDs for patients with RD and seronegative spondyloarthropathies. The dosage of immunosuppressants to patients with life-threatening RD should not be reduced. Continue HCQ/CQ in full doses in newly diagnosed SLE patients and pregnant women with SLE.

4.2. Newly diagnosed RD patients in the absence of SARS-CoV-2 exposure

Continue DMARDs for patients controlled with HCQ/CQ, when accessing or switch to different DMARDs (either combination or monotherapy), when inaccessible. Continue DMARDs for patients who remain controlled with an IL-6 inhibitor, when accessible or switching to a different biological agent, when inaccessible. Follow standard treatment protocols for acute case management for relapses with steroids.

4.3. Ongoing treatment of stable RD patients with SARS-CoV-2 exposure but without symptoms

Continuation of HCQ, sulfasalazine, NSAIDs, and IL-6 inhibitors. Temporary discontinuation of methotrexate,

immunosuppressants, biologicals other than IL-6 inhibitors till SARS-CoV-2 reports turn negative.

4.4. Treatments of RD in presumptive or confirmed SARS-CoV-2 infection

Continuation of HCQ/CQ regardless of SARS-CoV-2 status but discontinuation of sulfasalazine, methotrexate, immunosuppressants, biologicals other than IL-6 inhibitors, and JAK inhibitors. Continuation of IL-6 inhibitors on a shared policymaking process. Discontinuation of NSAIDs in RD patients with severe respiratory infections.

5. Reinitiating treatment following SARS-CoV-2

RD patients with a positive PCR test for SARS-CoV-2 but no symptoms, re-starting of RD treatments after 2 weeks is advised. RD patients with severe SARS-CoV-2 infections, re-initiation of RD treatments should be made on a case-to-case basis. Continuation of HCQ/CQ and IL-6 inhibitors regardless of SARS-CoV-2 status of the individual. Temporary cessation of methotrexate, immunosuppressants, biologicals other than IL-6 inhibitors till SARS-CoV-2 reports turns negative.

6. Telemedicine

The Health Ministry of India set a National Telemedicine Taskforce in 2005 after the success of ICMR-AROGYASREE,⁹ NeHA (National e-health authority), and VRC (Village Resource Center).¹⁰ Amidst the SARS-CoV-2 pandemic, the patients should be encouraged to use telemedicine services for follow-up protocols. Short educational videos should be shown for rehabilitation purposes to demonstrate various exercises during follow up care.

7. Conclusion

SARS-CoV-2 pandemic has put enormous pressure on patients with RD due to their innate weakness and shared treatment protocols in management. Though RD needs a multidisciplinary approach, which remains a challenge in this pandemic scenario, these strategic recommendations would aid in their optimal care amidst the adversity of SARS-CoV-2.

8. Conflict of Interests

All authors have declared no conflict of interests.

9. Conflict of Interest

None.

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