

Treatment adherence behaviours in rheumatic diseases during COVID-19 pandemic: a Latin American experience

With great interest, we read the recommendations from the German Society of Rheumatology regarding the management of patients with rheumatic diseases during the COVID-19 pandemic,¹ in line with The American College of Rheumatology recommendations² of continuing immunosuppressive therapy (IT) despite concerns of increased susceptibility to infections, since interruption might trigger an increase in disease activity associated with higher infection risk. Thus, one of the greatest challenges of the COVID-19 pandemic for rheumatologists concerns the patient's adherence to treatment. Despite rheumatologists agreeing that IT should not be interrupted,^{1,2} patient's own beliefs, perceptions and information about their disease influence the behaviour towards treatment adherence. Late in April, Michaud *et al* reported that patients with rheumatic diseases believed that IT increased their risk of contracting COVID-19 and the severity of the disease and that stopping IT might reduce that risk,³ which led to an urgent request to encourage medication adherence in patients with rheumatic diseases.⁴

However, a recent article in reply to Schulze-Koops *et al* demonstrates that despite the fear of contracting COVID-19, most patients with rheumatic diseases are not modifying their treatment. A survey of 500 patients in Greece, during the pandemic period, found that only 2.2% discontinued their disease-modifying antirheumatic drugs due to fear of immunosuppression significantly associated with chronic obstructive pulmonary disease and unemployment.⁵ To address this concern in our population, we conducted an anonymous electronic survey to determine treatment adherence behaviours during the COVID-19 pandemic, for consecutive patients of the outpatient rheumatology clinic in the Hospital Universitario (Monterrey, Nuevo León, Mexico), which serves a resource-limited population that lack access to health insurance, from five neighbouring states. Responses from patients without an autoimmune disease as diagnosis, of those who lacked knowledge of their medication, and duplicates were excluded.

Between the 14 and 25 May, we received 450 responses of which 105 were excluded. Thus, 345 responses were included for analysis, and the results are detailed in table 1. We found that 85% (n=293) of patients had not changed their medication schemes and that changes in medication schemes were mainly due to lack of availability (48.1%, n=25), followed by fear of contracting COVID-19 (25%, n=13). Regarding the patient's knowledge of medication, 91.3% (n=355) knew the benefits of their medications, and only 17.7% (n=61) were unaware of the risks of stopping them.

Our results support findings by Fragoulis *et al*⁵ and demonstrate that only a minority of patients (around 15%) are changing medication on concerns of immunosuppression, as compared with the results of Michaud *et al* in which up to 42% of patients had some change in their medication.³ Issues in medication supply explained changes in 48.1% (25 of 52) of our patients, a higher number than those reported by Fragoulis *et al* (26%, 19/73), and Michaud *et al* (10%, 20/197). With a shortage of antimalarials being the most frequently reported issue. Patients are not changing therapeutic regimes due to concern of COVID-19 but because of lack of availability; therefore emphasising that the new challenge for the rheumatologists is not only to encourage medication adherence but to appeal for the patients to have fair and sufficient access to medication.

Table 1 Survey results

	N (%)
Age (years)	
<30	48 (13.9)
30–60	227 (65.8)
>60	70 (20.3)
Female	
	311 (90.2)
Diseases	
Rheumatoid arthritis	177 (51.3)
Systemic lupus erythematosus	86 (24.9)
Primary Sjögren's syndrome	19 (5.5)
Axial spondyloarthritis	14(4)
Psoriatic arthritis	10 (2.9)
Inflammatory myopathies	8 (2.3)
Scleroderma	8 (2.3)
Vasculitis	5 (1.5)
Other*	18 (5.2)
Indicated treatment	
Synthetic DMARDs	195 (56.5)
Biologic and target DMARDs	25 (7.2)
Combined therapy (biologic and synthetic) DMARDs	27 (7.8)
Chloroquine, hydroxychloroquine	90(26)
Glucocorticoids	139 (40.3)
NAIDs	16 (4.6)
Behaviours answers	
Without changes in their indicated medication	286 (82.9)
Without changes in their indicated medication but thinking of suspending	7 (2)
Change in their medication (dose reduction, periodicity decrease or application delay)	22 (6.4)
Suspension of the indicated medication	17(5)
Suspension of the indicated medication and restart before the survey	13 (3.7)
Changed or suspended treatment	
Synthetic DMARDs	15 (28.8)
Biologic and target DMARDs	8 (15.3)
Combined therapy (biologic and synthetic) DMARDs	4 (7.7)
Chloroquine, hydroxychloroquine	25 (48.1)
Glucocorticoids	10 (19.2)
NAIDs	1 (1.2)
Reasons for changes or suspension of their medication	
Lack of availability	25 (48.1)
Fear of getting sick from COVID-19	13(25)
Indication of the rheumatologist	4 (7.7)
Indication of other clinicians	3 (5.8)
Economic reason	2 (3.8)
Other	5 (9.6)

Synthetic DMARDs: methotrexate, leflunomide, sulfasalazine, mycophenolate mofetil, azathioprine, cyclophosphamide, tacrolimus. Biologic and target DMARDs: certolizumab, adalimumab, golimumab, rituximab, tocilizumab, belimumab, abatacept, baricitinib, tofacitinib.

*Other: juvenile idiopathic arthritis, mixed connective tissue disease, undifferentiated connective tissue disease, Still disease, primary antiphospholipid syndrome.

DMARDs, disease-modifying antirheumatic drugs; NAIDs, non-steroidal anti-inflammatory drugs.

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