

LETTERS

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Impact of home confinement during the COVID-19 pandemic on medication use and disease activity in spondyloarthritis patients

To the Editor:

Home confinement, imposed as part of the social distancing measures in the fight against coronavirus disease 2019 (COVID-19), poses several problems for patients with spondyloarthritis (SpA), including the lack of physical activity (1), psychological factors, and confusion related to the prescriptions of nonsteroidal antiinflammatory drugs (NSAIDs) (2). We investigated the impact of confinement on medication use and disease activity in patients with SpA, using a questionnaire-based survey.

Between April 10 and April 21, 2020, a questionnaire was administered to 1,656 members of a private social network of the Association Contre les Spondylarthrites (ACS). The questionnaire, created using Microsoft form software, included questions on age, SpA type, treatment with NSAIDs and biologic agents and their modifications, onset of flares, and infections including COVID-19. A written explanation of the study aim was provided with the questionnaire. The study protocol was approved by the National Ethics Commission (Clinicaltrials.gov identifier: NCT04355923). Overall, 609 (37%) of the 1,656 members of the ACS responded to the questionnaire. Patient characteristics and responses regarding treatment modification are shown in Table 1.

From our survey, 382 of 609 subjects (63%) reported experiencing worsening disease during confinement, and 108 (28%) experienced considerable deterioration. Worsening of symptoms was significantly associated with treatment modification ($P = 0.001$). The number and severity of crises were greater during the confinement (of 512 patients with available information, 251 [49%] with severe flares during confinement versus 100 [20%] with severe flares before confinement [$P < 0.001$]).

Further, 88 subjects (14%) reported experiencing an infectious disease during the confinement. The occurrence of infection was associated with treatment modification ($P < 0.001$), particularly when the infection was COVID-19 ($P < 0.001$). The frequency of COVID-19 infection in patients treated with biologic disease-modifying antirheumatic drug (DMARDs) or NSAIDs was not higher than that in subjects without such treatment ($P = 0.6$ and $P = 0.4$, respectively).

The COVID-19 pandemic and the resulting confinement had significant consequences in this SpA population, with 47% of patients having changed their treatment. The majority of treatment changes were observed in patients who had been regularly

receiving NSAIDs. This may be explained by the largely inappropriate public warnings against the use of these drugs and the consequent confusion among both the general population and the medical community. To date, it remains unknown whether concomitant NSAIDs are harmful or safe in patients with COVID-19 (2). However, the recent American College of Rheumatology guidance for rheumatic disease management in the setting of the COVID-19 pandemic endorsed the continued use of these agents (3). NSAIDs are the reference treatment for SpA (4), and it is interesting that the majority of the patients discontinued treatment without consulting their physicians, which highlights the power of the media.

Furthermore, NSAIDs were more often discontinued when patients were experiencing disease worsening. However, it is difficult to say whether worsening symptoms were related to the imposed confinement (specifically the psychological ramifications) or to the suspension or reduction of NSAIDs. Psychological factors may play an important role in disease activity in SpA (5). Fewer patients reduced or discontinued treatment with biologic DMARDs in our study. Paradoxically, the increased infection risk among patients

Table 1. Characteristics and questionnaire responses of the patients in the SpA cohort*

Characteristic	SpA patients (n = 609)
Age, mean ± SD years	45 ± 11
Female sex	460 (76)
Treatment	
Biologic DMARDs	482 (79)
NSAIDs only	127 (21)
Combination NSAIDs and biologic DMARDs	428 (70)
Modified their treatment†	276 (47)
Biologic DMARDs‡	
No modification	365 (76)
Stopped	53 (11)
Extension of the interval between doses	66 (14)
NSAIDs§	
Modification of NSAID intake	217 (39)
Stopped	156 (28)
Reduced intake	61 (11)
Worsening of disease	382 (63)
Infection onset	88 (14)
Symptoms suspicious of COVID-19	13 (2)
Self-report of confirmed COVID-19 infection	18 (3)

* Except where indicated otherwise, values are the number (%). SpA = spondyloarthritis; COVID-19 = coronavirus disease 2019.

† Data available on 589 patients.

‡ All patients treated with biologic disease-modifying antirheumatic drugs (DMARDs) (n = 482).

§ All patients treated with nonsteroidal antiinflammatory drugs (NSAIDs) (n = 555).

receiving biologic DMARDs is well known, and patients have probably been informed of this risk at the time of treatment initiation (6,7).

Reduced physical activity resulting from home confinement could be another explanation for worsening symptoms. In SpA patients, exercise can reduce disease activity and, consequently, is recommended for optimal treatment (8).

In this patient population, COVID-19 occurrence was associated with SpA treatment modification. We did not find a link between NSAID or biologic treatment and COVID-19. When considering both the confirmed and the clinically suspected cases of COVID-19, we found 31 cases (13 clinically suspicious and 18 self-reported as being confirmed), which is more substantial than the 8 cases in a cohort of 320 patients with chronic arthritis (4 confirmed and 4 highly suggestive) reported by Monti et al (9). However, it is impossible to compare prevalence as the population, methodology, and period are different (9). It is important to emphasize that a majority of our patients were treated with NSAIDs. Our results are interesting because they provide data from a real-life setting.

Our findings should be interpreted within the limitations of the study. The most important limitation is that our results are based on self-reported data. For patients who reported having confirmed COVID-19, we could not verify that this was in fact confirmed via a positive test result. However, this is the first study providing information on therapy compliance during home confinement and reporting the frequency of COVID-19 in SpA patients. The size of our cohort reinforces the importance of our results.

Thus, our survey results show that in SPA patients, home confinement linked to the COVID-19 pandemic is associated with worsening of the disease and reduction or suspension of medication intake, in particular NSAIDs. These findings have considerable clinical implications, given that home confinement is likely to recur in the future. Patients need to be educated about the current evidence regarding NSAID treatment and ways to stay physically active at home.

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Morbidity and mortality from COVID-19 are not increased among children or patients with autoimmune rheumatic disease—possible immunologic rationale: comment on the article by Henderson et al

To the Editor:

We read with great interest the article by Henderson et al (1) on the therapeutic rationale for using glucocorticoids to treat the hyperinflammation and cytokine storm phases of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. We would like to expand on their analysis and discuss the data reported to date on the likelihood of serious outcomes of infection in children and patients with autoimmune rheumatic diseases (rheumatoid arthritis [RA] and systemic lupus erythematosus [SLE]).

To date, children and patients with autoimmune disease have rarely experienced progression of their infection to cytokine release syndrome, the third phase of coronavirus disease 2019 (COVID-19), with few being admitted to intensive care units