Depression and anxiety might not be increased during COVID-19 pandemic in patient with axial spondyloarthritis

E. Erpek[1] · D. Solmaz[1] · D. Bayraktar[2] · S. Akar[1]

Dear Editor,

Anxiety and depression are the most common psychiatric disorders in chronic inflammatory rheumatic condition and axial spondyloarthritis (axSpA) [1]. The prevalence of depression has been reported as 11–64% depending on the criteria used. Self-reported depression and anxiety were also found to be associated with disease activity and function in axSpA [1–3]. It is observed that mental health is affected among healthy subjects [4] during the COVID-19 pandemic, but it has not been systematically evaluated yet in axSpA patients. In the literature, we have seen only one study evaluating the anxiety and depression status of AxSpA patients in the pandemic, but in the study at issue, the pre-pandemic emotional status of the patients was not reported [5]. In this study, we aim to compare self-reported depression and anxiety scores before and during the COVID-19 pandemic in patients with axSpA.

Seventy-six axSpA patients who have filled the Hospital Anxiety and Depression scale (HADs) [6] questionnaire before pandemic (September 2019) within the research scope were included in this study.

Ethical approval was obtained from the local ethical committee (Izmir Katip Celebi University Ethics Board, Izmir (GOKAE-0569)) and all patients gave informed consent prior to data collection.

All patients were classified according to the ASAS AxSpA criteria [7]. In the first year of the epidemic, patients were contacted by phone between December 2020 and January 2021. The survey objectives and study team contact information were provided to patients before the interview. Demographics and disease-related characteristics including BASDAI, BASFI, and Patient Acceptable Symptom State (PASS) were recorded. Anxiety and depression were assessed by a Turkish validated HADs questionnaire [8]. The HADs cut-off value was taken as > 7 in both groups to define the presence of anxiety or depression. The patients were classified as mild, moderate, and severe symptoms for both anxiety and depression according to the HADs. Before and during the pandemic period, anxiety and depression scores were compared.

In the study population, 47 (61.8%) were male, the mean age was 42.9 (± 10.4) years, the mean years of education were 10.2 (± 4.5) years, the mean disease duration was 13.0 (± 7.8) years, 33 patients (43.4%) were current smoker, and 24 (31.6%) were consuming alcohol. Among these patients, 54 (71%) were treated with biologics and 20 (26.3%) were treated with NSAIDs. All patients continued their pre-pandemic treatment. In addition to that, only four patients had used duloxetine for fibromyalgia syndrome, and other antidepressant drug usage did not report by other patients. The frequency of anxiety (43.4% vs %43.4; $p = 1.00$) and depression (46.1% vs 44.7%; $p = 1.00$) was found to be similar before and during pandemic. There was no significant relationship between the presence of anxiety and depression with age, gender, years of education, smoking, alcohol consumption, and sleep duration. Patients with depression and anxiety had higher BASDAI (for depression, 2.5 ± 1.6 vs 1.4 ± 1.6, $p = 0.001$; for anxiety, 2.7 ± 1.8 vs 1.3 ± 1.3, $p < 0.001$), BASFI (for depression, 2.4 ± 2.1 vs 1.1 ± 1.3, $p = 0.004$; for anxiety, 2.4 ± 2.0 vs 1.2 ± 1.4, $p = 0.02$) scores and much less PASS positivity (for depression, 45.7% vs 70.7%, $p = 0.027$; for anxiety, 42.4% vs 72.1%, $p = 0.009$) in comparison with those without. Although the frequency of depression was similar before and during the pandemic period, symptom severity in depression was slightly increased during the pandemic (Fig. 1).

✉ S. Akar
servet.akar@gmail.com

1   Department of Internal Medicine, Division of Rheumatology
     Ataturk Education and Research Hospital, Internal Medicine
     Clinic, Izmir Katip Celebi University, 35360 Karabağlar/
     Izmir, Turkey

2   Department of Physiotherapy and Rehabilitation, Faculty
     of Health Sciences, Izmir Katip Celebi University, Izmir,
     Turkey

Fig. 1 Severity of depression
and anxiety in axial spondy-
loarthritis patients before and
during COVID-19 pandemic
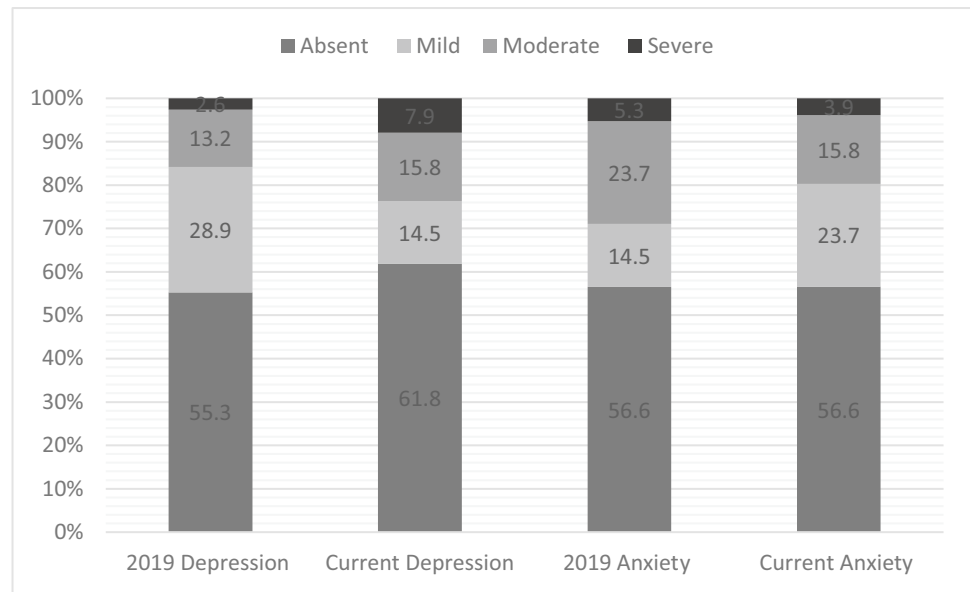
Current depression and anxiety scores were correlated with disease activity (HADsD vs BASDAI $r = 0.530$, $p < 0.001$; HADsA vs BASDAI $r = 0.500$, $p < 0.001$) and function (HADsD vs BASFI $r = 0.519$, $p < 0.001$; HADsA vs BASFI $r = 0.391$, $p < 0.001$). These relationships were also observed in the pre-pandemic period (HADsD vs BASFI $r = 0.326$, $p = 0.012$; HADsA vs BASDAI $r = 0.342$, $p = 0.06$).

This study showed that depression and anxiety symptoms seem to be comparable before and during the COVID-19 pandemic in axSpA. Similar to our findings, it has been reported that increased disease activity and impaired functional status were found linked to depression and anxiety symptoms in axSpA [1, 2]. Additionally, the presence of depression and anxiety symptoms has been shown to exacerbate the perception of pain leading axSpA patients to report greater disease activity [1–3].

In conclusion, depression and anxiety symptoms are associated with higher disease activity, impaired function, and less patient acceptable symptom state rather than pandemic. The long-term effect of the pandemic on mood changes and disease activity should be comprehensively reviewed in axSpA.

Compliance with ethical standards

Disclosures None.

Ethics approval Ethics approval was obtained from the local ethical committee (Izmir Katip Celebi University Ethics Board, Izmir (GOKAE-0569)).

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