LETTER

Resilience of systemic sclerosis patients following the first COVID-19 wave in Italy

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‘Resilience’ can be defined as ‘the psychological phenomenon representing the capacity of individuals to cope successfully with significant change, adversity or risk’ (1). Intrigued by the impact of the coronavirus disease 2019 (COVID-19) pandemic on the psychological health of patients with rheumatic diseases, in May–June 2020 we investigated the resilience of individuals affected by inflammatory arthritis, finding higher levels compared to the general population (2). However, aware of the non-generalizability of our results to the field of rheumatic autoimmune systemic diseases, we wondered whether patients with systemic sclerosis (SSc) had similar coping skills to withstand adversity and handle stressful situations.

To this aim, in July 2020 we conducted a survey on levels of resilience to the COVID-19 pandemic in 50 consecutive female patients with a definite diagnosis of SSc in comparison with a control group of 50 consecutive female patients affected by rheumatoid arthritis (RA) and with a sample of 50 women from the general population.

The research was conducted in compliance with the Declaration of Helsinki and its latest amendments. The study was approved by the local Ethics Committee (Comitato Etico Area Vasta Emilia Centrale, Bologna, Italy, approval number 0007795/2020).

Resilience was quantitatively assessed using the 14-item Resilience Scale (RS14) (3), a widely used questionnaire ranging from 14 to 98 points, with higher scores indicative of better coping skills. Moreover, to contextualize resilience and to more thoroughly explore the psychological distress caused by the advent of COVID-19, the Beck Depression Inventory II (BDI-II) scale (4) and the Hospital Anxiety and Depression Scale (HADS) (5), designed to measure anxiety (HADS-A) and depression (HADS-D), were also included. In both the BDI-II and HADS, higher scores represent a more pronounced impaired mood state.

No significant differences in mean age or body mass index were noted between the three groups. SSc patients presented significantly lower levels of resilience compared to patients with RA (75.6 ± 13.2 vs 82.3 ± 12.0, p = 0.009), while the difference from controls from the general population was non-significant (75.6 ± 13.2 vs 77.8 ± 11.7, p = 0.390) (Figure 1A). In addition, BDI-II scores were significantly higher than in the general population (Figure 1B) and HADS scores were significantly higher in SSc patients than in the two control groups (Figure 1C, D).

Regarding levels of resilience in SSc patients with different clinical characteristics, we noted that individuals with interstitial lung disease were significantly less resilient than those without (70.2 ± 13.5 vs 78.7 ± 12.2, p = 0.028), while no differences in mean RS14 levels were recorded with regard to the extent of cutaneous sclerosis (diffuse SSc 72.0 ± 12.1 vs limited SSc 77.0 ± 13.5, p = 0.234), presence of digital ulcers (76.6 ± 14.3 vs 74.5 ± 12.2, p = 0.577), or gastrointestinal involvement (74.7 ± 14.0 vs 78.0 ± 11.3, p = 0.429).

In addition, analysing the group of SSc patients, RS14 was inversely correlated with BDI-II score (R² = 0.392, p < 0.001), HADS-D score (R² = 0.493, p < 0.001), and HADS-A score (R² = 0.161, p = 0.004).

SSc patients are affected by a chronic and debilitating condition burdened by relevant psychological impact and cognitive impairment (6); however, literature about resilience in SSc is limited and the present study provides a novel insight into understanding the mechanisms for coping with adversity used by these patients. Our findings outline a higher risk of mental distress for SSc patients compared with RA patients in the context of the global threat caused by the COVID-19 pandemic. Moreover, scleroderma patients showed significantly higher levels of depression and anxiety compared to RA patients or individuals from the general population. Data were collected after restrictive measures had been eased by governmental authorities in order to capture the immediate effects of the COVID-19 experience. The limited number of patients recruited hampered the possibility of performing adequately powered subanalyses; however, the medically low levels of resilience in patients with diffuse cutaneous SSc or gastrointestinal involvement, along with the significantly low RS14 scores observed in SSc patients with interstitial lung disease, raise the hypothesis that individuals with more
severe disease variants may have less efficient strategies for building resilience.

Disclosure statement

No potential conflict of interest was reported by the authors.

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