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Restrictions related to COVID-19 can negatively affect Russian patients with chronic spontaneous urticaria

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Key words

Chronic spontaneous urticaria; coronavirus; SARS-CoV-2; COVID-19; restrictions; telemedicine; digital medicine service; pandemic impact.

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To the Editor,

chronic spontaneous urticaria (CSU) is a mast cell–driven skin disease characterized by the recurrence of transient wheals, angioedema, or both for more than 6 weeks without specific external stimuli. Multiple factors can influence the course of the disease and management of CSU including underlying conditions and triggers (1), for example respiratory tract infections. Recently, CSU has been discussed in the context of coronavirus disease (COVID-19) caused by severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2) (2, 3). COVID-19 is characterized by significant morbidity and mortality especially in patients with chronic diseases (4). A recent study reported that COVID-19 results in exacerbation of chronic urticaria in one of three patients, mostly in patients with severe COVID-19 (5-7). Although one study from Turkey showed that patients with chronic urticaria had difficulties in attending medical care (8), the effect of state restrictions and changes in the healthcare system due to pandemic on CSU course and management are still poorly investigated.

In Russia, a broad range of restrictions (*e.g.*, social distancing, wearing a mask, *etc.*) has been applied to prevent the spread of infection. To assess the impact of these restrictions on Russian

patients with CSU, we conducted a cross-sectional online survey among adult patients diagnosed with CSU from May 5th, 2020 to June 26th, 2020 (at the end of "the first wave" of COVID-19). A 21-item survey included questions on concomitant diseases and comorbidities, time of CSU onset, severity, treatment, the impact of restrictions due to pandemic on patients' daily life, symptoms, course of the disease, treatment and access to medical care and use of telemedicine. The survey link was distributed online. The participation was voluntary and anonymous. We received 111 completed surveys meeting inclusion criteria.

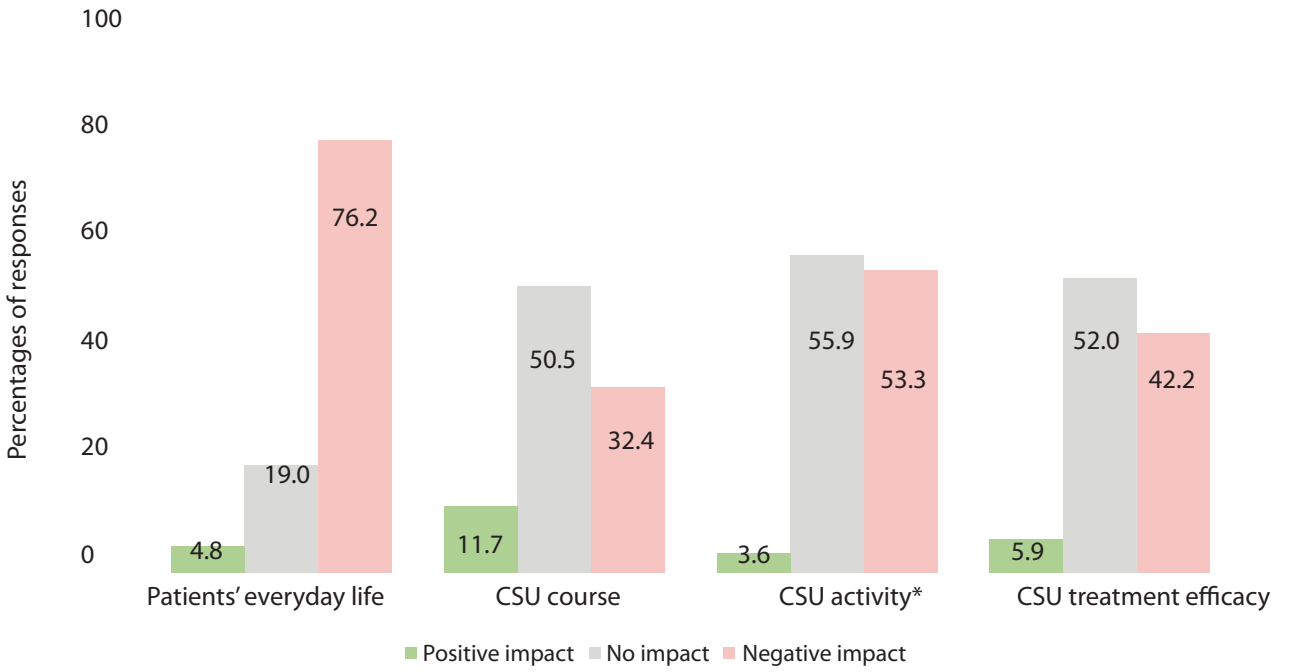
Out of 111 patients, 80.0% (89/111) were female. Median age was 33 years (interquartile range (IQR) 28-42 years) and median CSU duration was 3 years (IQR 1.6-5 years). Gastrointestinal (40.5%, 45/111), allergic (23.4%, 26/111) and cardiovascular diseases (15.3%, 17/111) were the most common reported comorbidities. Forty-four of 111 patients described that they were tested for COVID-19 and in eight of them COVID-19 was confirmed. Among COVID-19-positive patients 50.0% (n = 4) had a mild disease course and 50.0% (n = 4) had asymptomatic infection.

Negative effect of restrictions on everyday life (**figure 1**) was reported by 76.2% (80/105) patients with 15.2% (16/105) patients acknowledging severe negative and extremely negative impact. 34.2% (36/105) of respondents reported more frequent CSU exacerbations during restrictions. 54.3% of patients (56/103) associated restrictions due to pandemic with increased CSU activity. An increase in severity and frequency of pruritus, angioedema and/or wheals was noticed by 27.2% (28/103), 8.7% (9/103) and 18.4% (19/103) patients, respectively. The treatment efficacy decreased in 42.2% (43/102) of patients. One-fifth of patients (20.6%, 21/102) required an increased dose of the medication, and the frequency of medication intake increased in 13.7% (14/102) of respondents. The type of medication was changed or a new drug was introduced in 10.8% (11/102) of CSU patients. Five out of 15 patients treated with omalizumab reported low treatment efficacy due to the limited availability of omalizumab.

48.5% (52/106) patients had a limited access to in-person medical consultations. They postponed consultation (65.4%, 34/52), scheduled an appointment with another physician (7.7%, 4/52) and used telemedicine consultation as an alternative (19.2%, 10/52). Preferred options for telemedicine consultation were voice calls (50%, 6/12), messenger applications (33.3%, 4/12) and/or video calls (25.0%, 3/12). Telemedicine consultations were considered effective by 60.0% (6/10) of respondents, whereas 40% (4/10) of patients found them not helpful.

In our cohort, two-thirds of patients experienced a negative impact of pandemic on their daily life and up to a half of patients reported worsening of CSU course (**table I**, **figure 1**).

Figure 1 *- Impact of restrictions related to COVID-19 on patients' everyday life and CSU course, activity and treatment.*



*Multiple-choice questions; the diagram does not include data about the patients who failed to report.

Table I *- Factors which have the most pronounced negative impact on the course, activity and/or treatment of CSU*.*

Restrictions	% (n) of CSU patients (total n = 100)
Difficulties of getting medical aid/care	45 (45)
Stress caused by the pandemic	42 (42)
Fear of getting medical care due to self-isolation/ fear of being infected with SARS-CoV-2 or to infect others	42 (42)
Self-isolation / quarantine	25 (25)
Difficulties of buying medications	13 (13)
Restrictions of use transport / ban on the public transport use	10 (10)
No opportunity to get QR code (permission to work, visit a doctor, *etc*.), difficulties using a computer / website	3 (3)

*A multiple-choice question: patients were asked to choose the three most relevant factors related to the pandemic which impact the activity and/or severity and/or treatment of their chronic spontaneous urticaria.

The latter might be associated with restrictions directly, *e.g.,* unavailability to attend the doctor, and/or indirectly, *e.g.*, stress associated with pandemic and restrictions, that requires further investigation. In this context, telemedicine may be a valuable tool to provide the supportive care for CSU patients during the lockdown/restrictions period (9).

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NP, AA: conceptualization, investigation, methodology, resources, data curation, formal analysis, writing, review and editing. EG: data curation, formal analysis, writing. DM: conceptualization, review and editing. DS: data curation, formal analysis, writing. PK: conceptualization, investigation, methodology, review and editing.

Conflict of interests

The authors declare that they have no conflict of interests.

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