

**SPECIAL ISSUE ARTICLE**

# Hand eczema—A growing dermatological concern during the COVID-19 pandemic and possible treatments

Dear Editor,

Public health is currently struggling with the constantly growing burden of the new coronavirus disease (COVID-19) pandemic. COVID-19 may cause pneumonia and acute respiratory distress syndrome (ARDS), which are the leading causes of death in the infected individuals.<sup>1</sup> The large proportion of asymptomatic carriers combined with significant infectivity of the novel coronavirus has prompted a shift in social behavior in order to prevent its spread. Preventive measures currently recommended by the World Health Organization (WHO) include social distancing, avoiding of touching the face, covering the mouth and nose during coughing or sneezing, and frequent hand washing using soap or alcohol-based disinfectants.<sup>2</sup> Other methods increasingly growing in popularity include wearing masks and occlusive, disposable gloves.

Hand eczema (HE) is a relapsing and chronic condition of a heterogeneous etiology. Irritant contact dermatitis is the most frequent cause, followed by atopic dermatitis, allergic contact dermatitis, and other forms of eczematous disorders. In many patients, several of these entities overlap, which creates diagnostic and therapeutic challenges.<sup>3</sup>

Regardless of HE etiology, exposure to detergents and soaps, frequent hand washing (>20 times/day), and the use of occlusive gloves are all well-known risk factors of disease onset and/or exacerbation.<sup>3,4</sup> The necessity to use these measures during the COVID-19 pandemic may increase the frequency of HE.

HE may be an occupational disease. In developed societies, it is most frequently diagnosed in the workers of the health care, cleaning services, farming, and industry sectors.<sup>5</sup> It can be speculated that the relative prevalence of occupational HE will rise in healthcare professionals, while it is likely to remain similar in farming and slightly decrease in the workers of other sectors due to workplace restrictions.

Apart from the possibility of inducing irritant contact dermatitis, the increased exposure to the provoking factors of HE during the COVID-19 pandemic may cause the development of allergic contact dermatitis and sensitization to allergens in atopic individuals as an effect of the facilitated migration of allergens through the skin, which is secondary to the destruction of the epidermal surface lipids and disruption of the epithelial barrier.<sup>4</sup>

In view of the above, we believe that primary prevention of HE should be intensively promoted during the COVID-19 pandemic. Evidence-based interventions include using moisturizers in combination with barrier creams and constant education on skin protection.<sup>4</sup>

In case of active HE, a detailed history must always be taken, and additional examination such as patch skin testing or atopy score should be considered to identify underlying contact allergy or atopic dermatitis.<sup>6</sup>

The treatment of HE varies based on the severity of symptoms and disease phase (acute, chronic), with emollients and moisturizers being the baseline. Topical steroids such as clobetasol propionate and mometasone furoate are usually the first-choice anti-inflammatory agents, though they may interfere with the skin barrier regeneration, and thus their long-term use must be closely monitored. Topical calcineurin inhibitors, that is, tacrolimus and pimecrolimus, are deprived of these side effects and are recommended in patients who are likely to require prolonged treatment. In the case of HE refractory to topical corticosteroids, PUVA therapy may be introduced.<sup>6</sup>

Finally, systemic agents should be considered in severe cases refractory to topical treatment. Therapeutic options include short courses of systemic steroids during disease exacerbations, oral retinoids, for example, alitretinoin, acitretin, and immunosuppressants such as methotrexate, azathioprine, and cyclosporine A.<sup>6</sup> Despite the lack of evidence on the increased risk of severe COVID-19 in immunocompromised patients,<sup>7,8</sup> we believe that the first-line systemic treatment should involve oral retinoids followed by immunosuppressants in recalcitrant cases. However, because of the insignificant possibility of deteriorating the outcome of COVID-19 and good effect in most cases, topical therapy should be preferred in HE.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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