other two drugs (Stimulation Index to each drug, 2.03-2.10), it is likely that our patient was sensitized to all the drugs. Such 'multiple drug hypersensitivity' can be most efficiently proven by LTTs.<sup>5</sup> Interestingly, such 'multiple drug hypersensitivity' was often observed associated with mycoplasma pneumoniae infection.6 No previous reports, however, described the occurrence of multiple drug hypersensitivity in patients with SARS-CoV-2 infection. A straightforward interpretation is that our patient could be immunologically sensitized to multiple medications probably due to preceding or underlying SARS-CoV-2 infection, although it remains unknown whether SARS-CoV-2 infection could serve to enhance the activation of drug-specific T cells with cross-reactive reactivity.<sup>7</sup> Nevertheless, we cannot totally exclude the possibility that multiple drug sensitization proven solely by LTTs may be a mere epiphenomenon of the underlying SARS-CoV-2 infection.

In conclusion, we recommend that LTT tests be utilized in any patient with cutaneous manifestations of SARS-CoV-2 to exclude the possibility of drug sensitization. Multiple drug hypersensitivity is apparently under-reported because the diagnosis of SARS-CoV-2-induced rash is usually made without performing LTTs. If cutaneous symptoms were viewed as a mere manifestation of SARS-CoV-2 infection with no further search to identify drug hypersensitivity, then the disease would remain regarded as SARS-CoV-2-induced rash. Indeed, the presentation of our patient was consistent with symmetrical drug-related intertriginous and flexural exanthema (SDRIFE).<sup>8</sup> Although SDRIFE-like skin lesions have been reported as a cutaneous manifestation of COVID-19,<sup>9</sup> a drug aetiology could have caused SDRIFE-like skin lesions in patients with SARS-CoV-2 infection.

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### **Conflict of interest**

The authors have no conflict of interest to declare.

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[Correction added on 14 October 2020, after first online publication: ORCID of authors 'H.Takakura' and 'T.Shiohara' have been added to this version.]

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# Scabies outbreak during home confinement due to the SARS-CoV-2 pandemic

### Editor

In response to the rapid spread of COVID-19 at the start of the pandemic, governments introduced severe measures of home confinement and isolation of the population in an effort to prevent their health systems from collapsing. On March 14, with more than 4000 confirmed cases,<sup>1</sup> Spain began its nationwide lockdown which has extended for almost three months.

In recent weeks, numerous articles have reported a wide range of skin symptoms of COVID-19,<sup>2</sup> but there are other dermatological conditions that may have been aggravated during this global pandemic. Scabies is a highly contagious skin infestation caused by the mite *Sarcoptes scabiei* (*variety hominis*). In developed countries, scabies is usually observed sporadically or as institutional outbreaks in hospitals, nursing homes, prisons, long-term care facilities or in displaced persons and asylum seekers.<sup>3,4</sup> However, we have observed a significant increase of scabies cases in our region during the confinement period (March, April and May 2020) compared to the average for the same period during the previous five years (64 vs. 18.6 patients).

## Table 1 Comparison of demographic, clinical and therapeutic data between scabies cases diagnosed during the months of confinement and non-confinement

	Confinement <sup>†</sup>	No confinement‡	Statistical comparison
Ν	64	93	
Gender			
Male	32	48	$\chi^{2}$ (1) = 0.01, $P > 0.05$
Female	32	45	
Age (mean + SD)	$30.87\pm21.28$	$32.16 \pm 25.11$	t(155) = -0.336, P > 0.05
Cohabitants +	52 (81.25%)	61 (65.59%)	$\chi^{2}(1) = 3.865, P < 0.05$
Family Cluster	35 (54.68%)	18 (19.35%)	$\chi^{2}$ (1) = 19.61, $P < 0.05$
Symptoms duration	$9.75\pm5.85$	$5.77\pm5.172$	( <i>t</i> (154) = 4.47, <i>P</i> < 0.05)
Previous treatment	48 (75%)	14 (15.05%)	$\chi^{2}$ (1) = 54.53, $P < 0.05$
Treatment with permethrin	64 (100%)	93 (100%)	
Previous applications of permethrin (mean + SD)	$4.10\pm2.94$	$1.64\pm0.84$	<i>t</i> (59.9) = -5.123, <i>P</i> < 0.05
Treatment with ivermectin	36 (60.93%)	4 (4.3%)	$\chi^{2}(1) = 58.33, P < 0.05$

†Period between March and May 2020.

Period between March and May from 2015 to 2019.



In an attempt to analyse how the confinement had influenced the scabies infestation, we have compared the characteristics of the patients diagnosed by dermatologists (based on clinical and dermatoscopic criteria) in that quarter during the last five years with those diagnosed during the confinement (Table 1). The lockdown changed not only the number of patients infested, but also the features of the disease and our management (Fig. 1).

First, spending more time at home and therefore with relatives, increases the risk of transmitting the parasite through direct contact or by fomites, a rise that has also been observed during the winter season.<sup>5</sup> Second, we observed that during the period of confinement, the duration of symptoms reported by patients was significantly longer. This seems to be explained by the population's fear of leaving home unless it was strictly necessary, not seeking medical attention until they got desperate by the pruritus. The detection and treatment of the index case is the most effective measure to stop scabies spread, and this delay in diagnosis may have led to an increased intrafamilial transmission in our sample, as it is described in other studies.<sup>6,7</sup> The proportion of patients with history of family members or cohabitants diagnosed with scabies (or suspected) was significantly higher in the confinement group, reaching more than the 80%; and more than the half of our sample consulted the dermatologist with their cohabitants, conforming 'family clusters', while only a 20% did in the non-confinement group.

Regarding to treatment, all members of our sample were treated with topical 5% permethrin cream, as it is the first-line treatment in our country<sup>8</sup>; however, there is a higher proportion of

patients who had already been treated by their primary healthcare providers during confinement because general practitioners made an effort to avoid hospital referral of non-urgent conditions due to the public health situation. In addition, the number of permethrin applications in confined patients was significantly superior, and therefore, this group ended requiring oral treatment with ivermectin more frequently. Permethrin failure has often been observed in major outbreaks in institutions, due to complications in carrying out decontamination measures or in completing topical treatment, with frequent reinfections among cohabitants. On these occasions, oral treatment with ivermectin is considered as the first choice for controlling infestation.<sup>4,8,9</sup> In our opinion, during home confinement, minor outbreaks have arised within each family group, and management difficulties are similar to those previously mentioned for institutional outbreaks, so perhaps the approach should be similar.

The results presented are from a single hospital in Spain, and these results cannot be generalized; however, due to the dramatic evolution of the pandemic, we could suffer again a confinement and this work provides a basis for future researchers to implement and evaluate preventive actions to reduce and recognize early cases of scabies in this context.

### **Conflict of interest**

None declared.

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### Acral skin eruption observed during SARS-CoV-2 pandemic: possible keratolysis exfoliativa with red palms and soles

Editor,

Chilblain-like<sup>1-3</sup> and erythema multilforme-like<sup>4</sup> lesions represent the most reported and studied acral skin eruptions occurring in the paediatric age during the SARS-CoV-2 pandemic. In the same period, we observed a peculiar acral eruption in paediatric patients. Five children (4 females and 1 male) aged from 1 to 4 years (mean age: 3 years) presented erythema and oedema involving the palmar (5/5 cases) and plantar (3/5) surfaces. The most affected sites were thenar and hypothenar areas, and the fingertips. After some days, an intense superficial desquamation with a centrifugal pattern of expansion occurred (Fig. 1). The symptoms referred were itching (5/5), pain (1/5) and burning sensation (1/5). In 2/5 cases, fever (38-39°C) preceded the acral eruption, while a diffuse maculopapular rash occurred in 2/5



**Figure 1** Symmetrical redness of the palms and the fingertips, with multiple round areas of superficial desquamation.