

patients who had already been treated by their primary health-care 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 arisen 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 multiforme-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.

patients. The parents referred a history of warm extremities in all the cases. After 3-4 weeks, a complete and spontaneous remission was achieved by all the patients. Dermoscopy revealed a thin peripheral whitish scale collarette, surrounding a pink structureless centre (Fig. 2).

All the patients underwent complete blood tests that turned out to be normal, except for a slight increase of IL-6 titre in 2/5 patients (ranging 6.2-8.2 pg/mL; n.r.: <5.9 pg/mL). Throat cultures for group A beta-haemolytic streptococci (GABHS) were negative in all patients. Nasopharyngeal swab for SARS-CoV-2 RNA RT-PCR, and serum SARS-CoV-2 IgM and IgG (CLIA; YHLO BIOTECH, Shenzhen, China) were negative. Parvovirus B19 DNA and enterovirus RNA serum PCR turned out to be negative. Serology for mycoplasma pneumoniae, Epstein-Barr virus (EBV) and cytomegalovirus (CMV) was unremarkable, except for one (1/5) patient with an acute EBV infection. Interestingly, the EBV infection was asymptomatic, without fever or sore throat. Serological test for SARS-CoV-2 IgM and IgG was repeated after at least three weeks confirming the negative results.

Personal and dermatological past histories were unremarkable. Indeed, family histories were positive for atopy (4/5 patients), chilblain (1/5), dyshidrosis (1/5) and hyperhidrosis (1/5).

SARS-CoV-2 infection was excluded, and due to the occurrence during the lockdown, other diagnosis was considered, such as hand irritant contact dermatitis (ICD)<sup>5</sup> and acral frictional dermatosis (AFD)<sup>6</sup>. ICD may represent a consequence of an intense hands' hygiene and usually manifests over the dorsum of metacarpophalangeal joints and web spaces, where the irritants and allergens accumulate<sup>5</sup>. Regarding our patients, two of them (2/5) referred frequent handwashing. However, hands' dorsum or web spaces were spared and palmar and plantar surfaces represented the only affected sites. AFD is a hyperkeratotic acquired



**Figure 2** The dermoscopy showed large collarette of whitish scales attached at the periphery over a pinkish unstructured background. (20 X).

dermatosis typically observed on the bony prominences of the feet and legs<sup>6</sup>. In our patients, this diagnosis has been excluded for the acute onset, the exclusive involvement of palms and soles, and the absence of hyperkeratosis.

Juvenile gloves and socks papular purpuric syndrome (JGSPPS) is a self-limiting acral dermatosis characterized by purpuric and erythematous-oedematous plaques, with subsequent petechiae development. JGSPPS might be induced by several infectious agents, including CMV, EBV and parvovirus B19<sup>7</sup>. In our patients, this diagnosis was excluded by serological tests, and clinically by the absence of purpuric lesions and the presence of the desquamation. The negative GABHS throat cultures allowed us to exclude post scarlet fever desquamation.

Finally, exfoliative diseases have been considered, in particular keratolysis exfoliativa (KE). KE is an under-diagnosed palmo-plantar peeling dermatosis, characterized by cyclic and recurrent superficial exfoliation and collarette desquamation, due to cleavage within the stratum corneum. The sites affected are palms, soles and fingers. Subjective symptoms are represented by pruritus, pain and burning sensation<sup>8</sup>. Skin biopsy was not performed in our cases; however, the clinical presentation and the dermoscopic findings were consistent with superficial peeling. We hypothesized that KE diagnosis is likely. The frequent handwashing and the stress due to the changes in lifestyle in young children might represent the triggering factors in constitutionally predisposed subjects<sup>9</sup>. The major limitation of our study was the small sample size and the absence of histologic confirmation. The observation of further cases would be needed to support our hypothesis.

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### Conflict of interest

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## LETTERS TO THE EDITOR

# A study on DNA hydroxymethylation in Kaposi sarcoma and cutaneous angiosarcoma

Dear Editor,

Hydroxymethylation studies on cutaneous vascular tumours, such as classic Kaposi sarcoma (CKS) and cutaneous angiosarcoma (CAS), have not been reported yet. We aimed to investigate the expression of 5-methylcytosine (5-mc), 5-hydroxymethylcytosine

**Table 1** Clinical data and expression of DNA hydroxymethylation markers in classic Kaposi sarcoma (CKS) and cutaneous angiosarcoma (CAS)

Parameters	CKS n = 19	CAS n = 12	P-value		
Age median (range) years	63 (7–94)	72.5 (55–79)	0.10		
Gender m/f	13/6	8/4	0.097		
Stage at diagnosis (number of patients)	IA (10), IIA (7), IV (2)†	IA (8), IB (2), IIA (1), IIIC (1)†			
Disease relapse no/yes	6/13 (68.4%)	4/8 (66.7%)	1.0		
5-year sarcoma-specific survival no/yes	1/18 (94.7% <sup>§</sup> )	5/7 (58.3%)	<b>0.022</b>		
IHC-markers	CKS	CAS	P-value (CKS vs. CAS)	CKS tumour vs. control§	CAS tumour vs. control§
5-mc	213 (180–282)	224 (160–272)	0.54	219 (187–247) 226 (189–260) P = 0.18	224 (160–272) 212 (198–266) P = 0.91
5-hmc	213 (184–286)	194 (144–246)	<b>0.033</b>	219 (184–265) 245 (156–287) P = 0.11	194 (144–246) 256 (189–288) P = 0.0005
TET-2	207 (122–281)	196 (0–240)	0.24	203 (122–242) 207 (140–254) P = 0.17	196 (122–240) 210 (148–262) P = 0.043
IDH-2	217 (180–286)	173 (138–218)	<b>0.0024</b>	213 (180–251) 224 (198–268) P = 0.38	206 (176–267) 173 (138–218) P = 0.0068

5-hmc, 5-hydroxymethylcytosine; 5-mc, 5-methylcytosine; IDH-2, isocitrate dehydrogenase 2; IHC, immunohistochemistry; TET-2, ten-eleven translocation enzyme 2.

†According to Brambilla *et al.*<sup>1</sup>. ‡AJCC TNM staging for soft tissue sarcoma<sup>2</sup>. §Immunohistochemistry.

Bold means statistically significant.