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Scientific letters

Skin findings in the COVID-19 pandemic in the Region of Murcia☆

Hallazgos cutáneos en la pandemia de COVID-19 en la Región de Murcia

Dear Editor:

Severe Acute Respiratory Syndrome Coronavirus type 2 (SARS-CoV-2) infection is the cause of the so-called coronavirus disease 2019 (COVID-19), which has currently spread causing a global pandemic.[1]

There is little information about cutaneous involvement caused by this virus, mainly collected in an initial series of adult patients from Lombardy[1] (maculopapular, urticariform, or varicelliform rashes) and isolated cases of petechial rashes,[2] digital gangrene and livedoid lesions.[3] We report a descriptive and multicenter case series collected in our setting.

During the week of 13th to 19th April 2020, all suspected cases of cutaneous lesions caused by COVID-19 from the Region of Murcia were collected by tele-consultation or visit to admitted patients. To do this, we requested primary care doctors to electronically report any cutaneous findings in patients with disease confirmed by diagnostic tests or in their cohabitants.

Table 1
Demographic and clinical data of cases with COVID-19 or in close contact with confirmed cases.

Case	Age (years)	Sex[a]	Type of lesion	Site[b]	Fever	Respiratory	Cutaneous onset	Admission	ICU	Test COVID-19	Close COVID-19 contact
1	2	F	Hives	UL	No	No	NA	No	No	No	Yes
2	1	M	Chilblain	Feet	No	No	NA	No	No	No	Yes
3	16	F	Chilblain	Feet	No	No	NA	No	No	–	Yes
4	0	F	Rash	Face	YES	Yes	17 days later	No	No	PCR^{-}	Yes
5	43	M	Rash	UL LL	Yes	Yes	3 days later	No	No	IgM^{+}	Yes
6	47	F	Papules and bruises	UL	Yes	Yes	14 days later	Yes	No	IgM^{+}	Yes
7	56	M	Hives	Trunk	No	Yes	37 days later	Yes	Yes	PCR^{+}	NK
8	62	M	Ulcer	Sacral	No	Yes	20 days later	Yes	Yes	PCR^{+}	NK
9	85	F	Acrocyanosis	Hands and feet	No	Yes	24 days later	Yes	No	PCR^{+}	NK
10	70	F	Erythema multiforme	Circumoral	No	Yes	18 days later	Yes	Yes	PCR^{+}	NK
11	5	M	Hives	General	Yes	No	2 days before	No	No	PCR^{-}	Yes
12	34	M	Follicular papules	General	Yes	No	14 days later	No	No	PCR^{-}	Yes
13	5	F	Hives	General	No	No	NA	No	No	PCR^{-}	Yes
14	18	F	Tinea	Neck	Yes	Yes	4 days later	No	No	PCR^{+}	NK
15	0	M	Rash	Trunk UL	No	No	NA	No	No	No	Yes
16	25	F	Keratosis pilaris	UL LL	No	Yes	NA	No	No	PCR^{+}	NK
15	0	M	Rash	Trunk UL	No	No	NA	No	No	No	Yes
16	25	F	Keratosis pilaris	UL LL	No	Yes	NA	No	No	PCR^{+}	NK

[a] Gender: M: male; F: female.
[b] Site: location of lesions: LL: lower limbs; UL: upper limbs.
NK: not known; NA: not applicable; ICU: intensive care unit.
Cutaneous onset: offset between systemic respiratory symptoms and cutaneous lesions.

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During the study period, 196 cases were confirmed by serology (*Polymerase Chain Reaction* [PCR]) in our region. That means that from 1463 initial cases, a total of 1659 were reached at the end of data collection.

Throughout these 7 days, of the 86 cases initially assessed, 16 met the requirements of *de novo* cutaneous lesion development together with positive evidence of infection or close contact with cohabitants of COVID-19 disease confirmed by diagnostic tests (Table 1). The mean age of this group was 29 years (range: 8 months–85 years, median:21 years). 56% of cases occurred in women.

The most common cutaneous reaction was hives (25%), followed by rashes (19%) and chilblain-like lesions (12%). Furthermore, we found another group of heterogeneous cutaneous lesions of remarkably diverse origin (infectious, vascular, inflammatory, traumatic, keratosis pilaris, and acrocyanosis). Thirty seven percent of cases associated fever and 56% respiratory symptoms, from cough to double pneumonia.

Unlike the series reported in Lombardy[1] in which the most common cutaneous manifestation was erythematous rash, hives was the most common finding in our series. Previous studies showed that the most common cause of hives in children is infections, especially those of the respiratory tract.[4]

Keratosis pilaris is a common finding in children with atopic diathesis. We have found no evidence in the scientific literature of keratosis pilaris onset in patients with COVID-19. We do not know the mechanisms that may justify this finding in the context of COVID-19 disease.

One of the findings in our series is acrocyanosis. This sign reflects the peripheral hypoxia in probable relation to the thrombotic phenomena that have been described in the disease, both cutaneously[3] as well as in other organ's vessels, including the lungs, heart, or brain, or by processes such as disseminated intravascular coagulation.[5] In our case, we observed this finding in a patient with respiratory failure who required hospital admission.

This study has some limitations. Firstly, a restricted access to diagnostic tests, which excluded cases that presented with guiding symptoms of COVID-19, but which were not confirmed by PCR or serology; on the other hand, the elective use of tele-dermatology has made it difficult to take biopsies of these lesions.

More studies are needed that collect cutaneous manifestations in patients with COVID-19. Knowledge of these cutaneous reactions and study of the temporal patterns of onset of these findings could help to identify patients without other symptoms of this disease, especially in those regions where diagnostic tests are not available.

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References

1. Recalcati S. Cutaneous manifestations in COVID-19: A first perspective. J Eur Acad Dermatol Venereol. 2020, http://dx.doi.org/10.1111/jdv.16387.
2. Jimenez-Cauhe J, Ortega-Quijano D, Prieto-Barrios M, Moreno-Arrones OM, Fernandez-Nieto D. Reply to "COVID-19 can present with a rash and be mistaken for Dengue": Petechial rash in a patient with COVID-19 infection. J Am Acad Dermatol. 2020, http://dx.doi.org/10.1016/j.jaad.2020.04.016.
3. Manalo IF, Smith MK, Cheeley J, Jacobs R. A dermatologic manifestation of COVID 19: transient livedo reticularis. J Am Acad Dermatol. 2020, http://dx.doi.org/10.1016/j.jaad.2020.04.018.
4. Ricci G, Giannetti A, Belotti T, Dondi A, Bendandi B, Cipriani, et al. Allergy is not the main trigger of urticaria in children referred to the emergency room. J Eur Acad Dermatol Venereol. 2010;24:1347–8.
5. Deng Y, Liu W, Liu K, Fang YY, Shang J, Zhou L, et al. Clinical characteristics of fatal and recovered cases of coronavirus disease 2019 (COVID-19) in Wuhan, China: a retrospective study. Chin Med J (Engl). 2020, http://dx.doi.org/10.1097/CM9.0000000000000824.

Beatriz Pérez-Suárez [a], Teresa Martínez-Menchón [b], Eugenia Cutillas-Marco [c,*]

[a] *Servicio de Dermatología, Hospital General Universitario Morales Meseguer, Murcia, Spain*
[b] *Servicio de Dermatología, Hospital Clínico Universitario Virgen de la Arrixaca, El Palmar, Murcia, Spain*
[c] *Servicio de Dermatología, Hospital General Universitario Reina Sofía, Murcia, Spain*

* Corresponding author.
E-mail address: ecutillas@aedv.es (E. Cutillas-Marco).

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Iatrogenic hyperthyroidism can be a triggering factor for takotsubo cardiomyopathy

Hipertiroidismo iatrogénico como factor desencadenante de miocardiopatía de estrés

To the editor:

Takotsubo cardiomyopathy, also known as stress cardiomyopathy (SCM), consists of a reversible left ventricular systolic and diastolic dysfunction in the absence of significant angiographic lesions, simulating an acute coronary syndrome. We describe a case of SCM in the setting of iatrogenic hyperthyroidism.

A 60-year-old male with a previous history of chronic obstructive pulmonary disease, full remission laryngeal carcinoma treated with surgery and radiotherapy and primary hypothyroidism diagnosed 10 years ago under treatment with levothyroxine 100 micrograms per day, presented to the emergency service due to progressive increase of his baseline dyspnea and increased anxiety of 10 day-evolution, without symptoms of respiratory tract infection or chest pain. The initial physical examination highlighted sinus tachycardia and generalized pulmonary hypoventilation. Chest X-ray showed signs of mild fluid overload and vascular redistribution. At the emergency room he presented a sudden episode of tachypnea, respiratory worsening and desaturation up to 87% by pulse oximetry. An electrocardiogram demonstrated flattened T waves in V2 and V3 and shallow inverted symmetric T waves in precordial leads from V4 to V6 and in lower face. A transthoracic echocardiogram showed akinesia of the apex and medio-distal segments of all faces with hyperkinesia of basal segments and severely depressed left ventricular ejection fraction (LVEF), 30% visually estimated. Blood analyses revealed leukocytosis with neutrophilia, Nt-proBNP was 12788 ng/L and Troponin-I 429 ng/L with preserved renal function. Urgent coronary angiography was performed with no significant lesions in the coronary arteries. Treatment with furosemide, spironolactone and captopril was initiated. A control echocardiogram was repeated 24 hours after the onset of the symptoms in which normalization of LVEF and previous contractility