

performing serology for the viral infections associated with cutaneous manifestations, for example parvovirus B19 and enterovirus. Most of them reported itching and burning sensation. Only two of them referred pain. They were variably symptomatic for the respiratory tract, but none of them had such a severe lung involvement as to require intubation. One of them was completely asymptomatic, and only the acral vascular manifestation led us the suspicion of coronavirus infection. In six of the patients showing exanthematic rashes, a punch biopsy for histological examination was obtained (Fig. 1F), showing features of perivascular dermatitis and vasculitis, which are compatible with that of a viral exanthem.

It is known that exanthematic rashes can occur during viral infection.⁴ We can say that erythematous rashes during coronavirus infections may have the same origin as the other viral rashes.⁵ Instead, the vasculitic eruptions could be due to the vascular changes observed in these patients. Degeneration of the endothelium and vascular damages, including both formation of thrombus and congestion in small vessels, were observed in organs other than the lung in autopsies from skin. Indeed, while the 2019-nCoV is mainly distributed in the lung, the damage caused by the infection also involves the vessels, with the possibility of ischaemic and embolic damages.⁶

The clinical patterns of the rashes described in COVID-19 patients till now include urticaria, acral ischaemia, morbilliform, livedo reticularis, vesicular and petechial.^{5,7-9} As regards, the histological patterns, perivascular dermatitis and transient acantholytic dermatosis are those described till now.¹⁰

We are presenting this paper to share our cases of skin involvement during the coronavirus disease. Undoubtedly, no certain association can be established between COVID-19 and skin eruptions, and further studies are needed.

Acknowledgement

The patients in this manuscript have given written informed consent to the publication of her case details.

Conflict of interest

Valeria Gaspari, Iria Neri, Cosimo Misciali and Annalisa Patrizi have nothing to disclose.

Funding sources

None.

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DOI: 10.1111/jdv.16693

Sexually transmitted infections during the COVID-19 outbreak: comparison of patients referring to the service of sexually transmitted diseases during the sanitary emergency with those referring during the common practice

To the Editor,

Sexually transmitted infections (STIs) and diseases (STDs) affect millions of people every year worldwide.¹ In Italy, data are provided by the Italian National Institute of Health (INIH) and reported to the European Centre for Disease Prevention and Control (ECDC).^{2,3} In 1991 and 2009, the Italian sentinel surveillance system was established, consisting in 25 public centres (12 clinical, 13 laboratories) on the national field for diagnosis, treatment and data transmission to the INIH.⁴ The STDs service of Dermatology, Bologna belongs to it and is a free-access

Table 1 Patients' characteristics and medical provisions before and after the lockdown

Patients' characteristics	Time			
	Before the lockdown		After the lockdown	
	N	%	N	%
Sex				
F	374	35.4	48	24.0
M	682	64.6	151	75.5
M/F	0	0.0	1	0.5
Type of sexual relationship				
MSM	297	28.1	75	37.5
MSW	381	36.1	77	38.5
MSW/MSM	0	0.0	1	0.5
WSM	371	35.1	45	22.5
WSW	7	0.7	0	0.0
WSW/WSM	0	0.0	2	1.0
Sexual orientation				
Homosexual	304	28.8	75	37.5
Heterosexual	752	71.2	122	61.0
Bisexual	0	0.0	3	1.5
Total	1056	100.0	200	100.0
Medical provisions				
Prophylaxis	362	33.5	28	13.1
Lab tests withdrawal	274	25.3	52	24.3
Syphilis (diagnosis, therapies, follow-ups)	43	4.0	18	8.4
<i>Chlamydia</i> (urethritis and cervico-vaginitis)	21	1.9	8	3.7
<i>Chlamydia</i> (proctitis)	15	1.4	4	1.9
<i>Chlamydia</i> (pharyngitis)	0	0.0	0	0.0
<i>Neisseria</i> (urethritis and cervico-vaginitis)	18	1.7	7	3.3
<i>Neisseria</i> (proctitis)	8	0.7	4	1.9
<i>Neisseria</i> (pharyngitis)	4	0.4	6	2.8
Unspecified urethritis	34	3.1	9	4.2
Molluscum contagiosum	10	0.9	3	1.4
Genital warts	101	9.3	22	10.3
Candida balano-posthites	32	3.0	9	4.2
Vulvo-vaginitis	37	3.4	2	0.9
Genital herpes	23	2.1	9	4.2
Other	99	9.2	33	15.4
Total	1081	100.0	214	100.0

Prophylaxis, includes blood test examination for HIV, HBV, HCV, syphilis and/or urine PCR analysis for *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. WSM, Women who have sex with men.

service (7.30–11 am) from Monday to Friday, with a patient flow of 50 patients/day.

As consequence of the COVID-19 emergency, the Ministerial Decree limited the circulation in Italy from 9 March 2020 to 3 April 2020.⁵ Thus, after the lockdown, the number of accesses was reduced to a maximum of 30 accesses/day.

We conducted a prospective observational study collecting age, sex, type of sexual relationship and diagnostic question for each patient referring to the service. Then, we compared data with those of the 4 weeks before the lockdown (20 February to 6 March 2020). We used the chi-square test for categorical

variables (gender, diagnostic question and sexual orientation) and the *t*-test for continuous variables (age).

After the lockdown, 200 patients attended the service, with an average flow of 10 patients/day. Patients' age ranged from 18 to 77 years. Concerning sexual orientation, 122 (61%) were heterosexual, 75 (37.5%) homosexual and 3 (1.5%) bisexual. Compared with the patients before the lockdown, they were more likely to be male (75.5% vs. 64.6, $\chi^2 = 14.8$, $P < 0.001$), MSM (37.5% vs. 28.8%, $\chi^2 = 22.6$, $P < 0.001$) and significantly older (35.4 vs. 33.1 years, *t*-test = 2.47, $P = 0.018$; Table 1). Before and after the lockdown patients from 15 to 49 years accounted

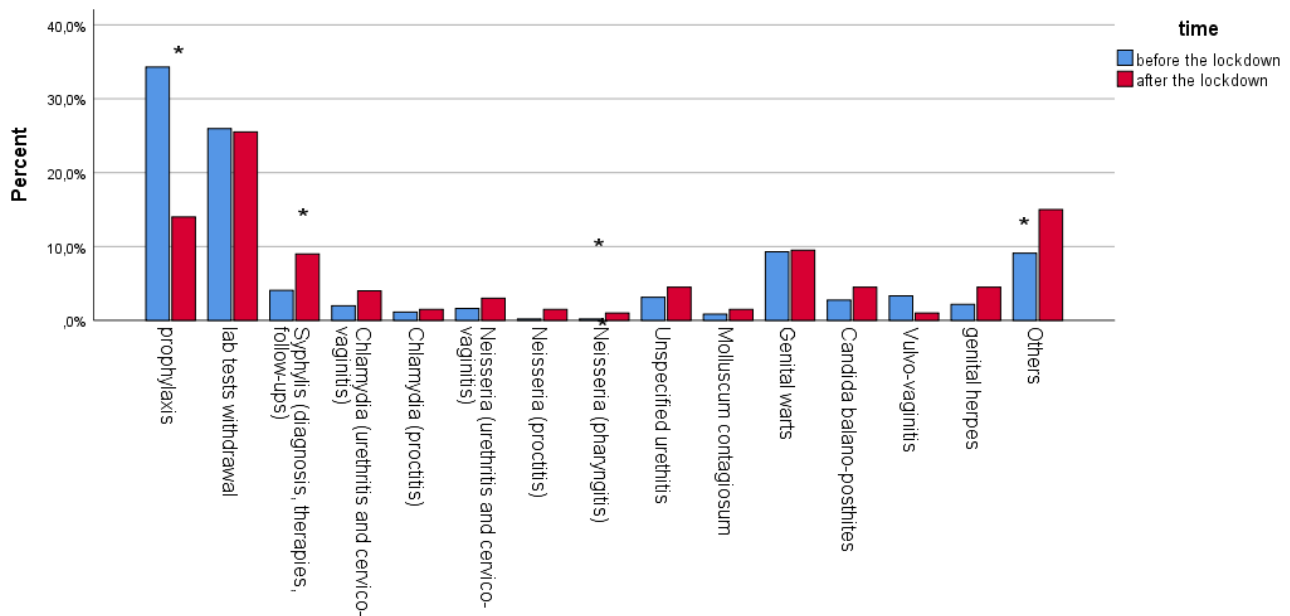


Figure 1 Frequency distribution of the type of service delivered in the two time periods: before and after the lockdown. (Asterisks denote significant differences).

for 88.6% and 85% but, among them, those from 15 to 24 years declined from 27.3 to 15.5% ($\chi^2 = 12.3$, $P < 0.001$) and, after the lockdown, the youngest patient was 18-year-old, while before he/she was 15-year-old.

A total of 214 medical provisions were recorded after the lockdown: 13 patients required more than one healthcare service. The most common were prophylaxis ($N = 28$) and medical reports withdrawal ($N = 52$), accounting for 37.4%. Furthermore, consultations were for genital warts ($N = 22$, 10.3%), syphilis-related issues ($N = 18$, 8.4%), *Neisseria gonorrhoeae* infections ($N = 17$, 8%), *Chlamydia trachomatis* ($N = 13$, 6.1%), non-*Neisseria* and non-*Chlamydia* urethritis ($N = 9$, 4.2%), *Candida balano-posthitis* ($N = 9$, 4.2%), genital herpes ($N = 9$, 4.2%), molluscum contagiosum ($N = 3$, 1.4%), *Candida vulvo-vaginitis* ($N = 2$, 0.9%; Table 1). The remaining 33 medical provisions (15.4%) not included in the former categories, and defined as *Other*, encompass STIs-related and non-STIs-related issues, as therapeutic counselling and pathologies involving genital area (inflammatory diseases, or diagnostic workup).

Before the lockdown, a total of 1081 medical provisions were delivered. The percentage of visits for prophylaxis declined after the lockdown, while visits for syphilis, gonococcal pharyngitis and inflammatory genital diseases increased significantly (Fig. 1). The percentage of patients requiring more than one provision increased from 2.1 to 6.5%, after the lockdown.

Patients characteristics and medical provisions before and after the lockdown were consistent with the literature.^{3,6,7}

However, the percentage of men who have sex with men (MSM) recorded remained higher than the national trends, (28.8% vs. <20%).^{2,4} Moreover, the profile of patients and the type of medical provisions required changed. Whether this is due to a real decline of sex-related risk or if it is only a consequence of the fear of referring to hospitals, is unknown. Some Italian cardiologists, indeed, showed that during the lockdown the diagnostic delay of myocardial infarctions and cardio-vascular emergencies increased, leading to higher mortality/morbidity, especially when a timely intervention would have led to better outcomes.⁸ This is an open scenario and further information is required.

Acknowledgement

None.

Conflict of interest

None declared.

Funding sources

None declared.

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DOI: 10.1111/jdv.16694

Hand eczema pandemic caused by severe acute respiratory syndrome coronavirus 2 hygiene measures: the set-up of a hand eczema helpline for hospital personnel

Editor

Hand eczema, also known as hand dermatitis, often results from a combination of causes, including genetics (atopic constitution), irritating substances and contact allergens.

Table 1 Patients' characteristics

Patient number	Gender (m/f)	Age (year)	Profession	Atopic constitution (e, h, a)	Known contact allergies
1	m	62	Laboratory assistant	h	None
2	m	44	Technical automation specialist	h	None
3	f	28	Pharmacist	e	None
4	f	35	Medical social worker	e	Resin
5	f	32	Neurology resident	e	None
6	f	31	Pharmacy assistant	h, e, a	Perfume
7	f	38	Laboratory assistant	h	None

a, asthma; e, eczema; f, female; h, hay fever; m, male.

The novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causes coronavirus disease 2019 (COVID-19). As current evidence suggests that SARS-CoV-2 can be transmitted through contaminated hands, the World Health Organization recommends frequent handwashing with soap and water, or hand rubbing with an alcohol-based hand rub.

Due to these enhanced hygiene measurements, we observed an increase in irritant hand eczema, especially among healthcare workers. This is also confirmed by Lan *et al.*¹ who found a prevalence rate of skin damage to the hands of 74.5% (392/526) among first-line healthcare workers caused by enhanced infection prevention measures. They also showed that the risk of skin damage increased by more frequently performed hand hygiene routines (>10 times per day)¹.

We know from previous studies that hand eczema has a negative impact on quality of life and that occupational hand eczema can lead to prolonged sick leave or a change of profession.^{2,3}

In our hospital, we decided to proactively help our colleagues by promoting the following interventions:

Written educational information

Previous studies have shown that improving patients knowledge can induce behavioural changes and decrease the incidence of hand eczema.^{4,5} We provided all hospital workers with educational information about hand eczema. This information was placed on our internal website, with additional links to a document with tips and tricks about hand eczema, information about moisturizing, handwashing and glove wearing.

Basic skincare measures

To restore the skin barrier, we advised to apply hand cream and moisturizers as often as possible – especially after handwashing – and not only at work, but also at home.

All hospital workers were advised to wear protective gloves when necessary and especially during tasks with water contact. They were instructed to wear the gloves as short time as possible to prevent irritant hand eczema by occlusive effect and to