linear polarizers. Liquid-crystalline materials with lamellar arrangements exhibit anisotropic optical properties, not cubic arrangement ones, thus we believe the lamellar or compact hyperkeratosis acts as an optically anisotropic substance and produces SWS under polarized dermoscopy (Fig. 2f).[5] A toggle of light from polarized to nonpolarized mode will render a better appreciation of the colour and morphology of WS (Fig. 1).

The colour of WS, in our study, varied from brilliant white to grey–white to blue–white. The brilliant-white colour was observed when the background was pink (without pigment incontinence) and blue–white when the background was blue–grey (with pigment incontinence) (Fig. 1). The background/perilesional colour appeared more greyish and dull under the nonpolarized mode, whereas it appeared brighter and more bluish under polarized mode. Similarly, the vascular structures were brighter and more focused under polarized mode (Fig. 2a,b). The commonest vascular structure noticed was the dotted vessels in a peripheral distribution followed by uniform and unspecific distribution. In addition to WS, comedo-like opening, linear-irregular crypt, scales and keratotic plugging were better appreciated under nonpolarized mode.

Under dry dermoscopy (10 patients, 25 lesions; data not shown), the colour and distribution of the scales were distinctly visible, but the overlying scales hindered the appearance of SWS, WS, vascular structures, and at times comedonal and linear-irregular crypts (Fig. 2).

The study limitations included its retrospective nature, inclusion of a relatively small number of lesions, and enrolment of patients of only two phototypes.

In conclusion, we have delineated the differences in various dermoscopic features of LP observed under polarized vs. nonpolarized mode. The visibility of WS, which is better appreciated under nonpolarized light, can be obscured by the SWS. It is therefore necessary to toggle from polarized to nonpolarized mode to differentiate between SWS and WS and to better visualize WS.

S. Dash,[1] B. Behera,[1] A. Palit,[1] M. Sethy,[2] A. K. Nayak[1] and P. Ayyanar[2]
Departments of [1]Dermatology and Venereology and [2]Pathology, All India Institute of Medical Sciences (AIIMS), Bhubaneswar, India
E-mail: biswanathbehera61@gmail.com
Conflict of interest: the authors declare that they have no conflicts of interest.
Accepted for publication 21 January 2021

References

1 Vázquez-López F, Alvarez-Cuesta C, Hidalgo-García Y, Pérez-Oliva N. The handheld dermatoscope improves the recognition of Wickham striae and capillaries in lichen planus lesions. *Arch Dermatol* 2001; **137**: 1376.
2 Errichetti E, Zalaudek I, Kittler H *et al.* Standardization of dermoscopic terminology and basic dermoscopic parameters to evaluate in general dermatology (non-neoplastic dermatoses): an expert consensus on behalf of the International Dermoscopy Society. *Br J Dermatol* 2020; **182**: 454–67.
3 Haspeslagh M, Noe M, De Wispelaere I *et al.* Rosettes and other white shiny structures in polarised dermoscopy: histological correlate and optical explanation. *J Eur Acad Dermatol Venereol* 2016; **30**: 311–13.
4 Rivers JK, Jackson R, Orizaga M. Who was Wickham and what are his striae? *Int J Dermatol* 1986; **25**: 611–13.
5 Dash S, Behera B, Palit A *et al.* An unusual dermoscopic presentation of eruptive lichen planus dominated by rosettes and blink sign. *Australas J Dermatol* 2020. https://doi.org/10.1111/ajd.13398.

Supporting Information

Additional Supporting Information may be found in the online version of this article:
Video S1. Demonstration of shiny white structures under polarized mode and the blink sign.
Fig S1. (a,c) Bright white lines representing shiny white structures under polarized mode. (b,d) Dull white lines representing Wickham striae under nonpolarized mode. Note the disappearance of the shiny white structures.

Toxic erythema as the first sign of COVID-19 infection

doi: 10.1111/ced.14571

During the COVID-19 pandemic, dermatologists have sought to identify and categorize skin manifestations associated with COVID-19, in the hope that it will aid early recognition and treatment of the condition, and provide insight into the pathophysiology of the disease. Urticarial, purpuric, maculopapular and acral rashes have been described in the literature to date.[1,2] We report a patient presenting with toxic erythema as the first sign of COVID-19 infection.

A 64-year-old woman presented with a 1-week history of a sore, itchy red skin eruption that started on her trunk and rapidly spread to her limbs and face. A few days before the rash appeared, she had taken paracetamol for a mild headache, but reported no other prodromal symptoms. Despite treatment with loratadine, prednisolone and flucloxacillin, the rash continued to progress. The patient subsequently presented to hospital and a dermatology review was sought. Following admission, she developed a fever, accompanied by a dry cough and was found to be hypoxic requiring oxygen.

Physical examination revealed sharply demarcated areas of erythema, extending from the patient's trunk to her upper thighs and the inner aspect of her arms. The lesions were not tender and were blanching, but warm to

touch, and there was associated facial oedema and erythema (Fig. 1). The differential diagnosis included a viral exanthem or a drug eruption.

Histological examination of a skin biopsy showed widespread epidermal lymphocytic exocytosis associated with spongiosis. There was evidence of interface dermatitis and marked oedema in the papillary dermis with a perivascular infiltrate of lymphocytes in the upper dermis consistent with a viral exanthem. Direct immunofluorescence was negative (Fig. 2).

Blood tests showed raised C-reactive protein level and white blood cell count but eosinophil count was normal. No obvious focus of bacterial infection was found. Subsequent investigations, including COVID-19 PCR and chest radiography, confirmed a diagnosis of COVID-19 pneumonitis. The patient was commenced on oral dexamethasone, which led to rapid improvement in the rash and the systemic symptoms. She was eventually discharged having recovered from COVID-19 infection.

Morbiliform eruptions are commonly seen as part of a spectrum of skin eruptions associated with acute viral infections. The exact mechanism for erythema in the context of COVID-19 infection is still unknown, but a recent systematic review revealed that the majority of skin manifestations occurred after the onset of systemic symptoms.[3,4] Recent reports from Spain described patients with COVID-19 presenting with pseudochilblain-like, vesicular, urticarial, maculopapular or livedoid rashes. Importantly, the authors questioned whether skin manifestations should feature as a clinical sign of COVID-19 in view of the high number of patients presenting with skin disease.[5]

This case adds further evidence to this proposal, and to our knowledge, is the first report of COVID-19 infection

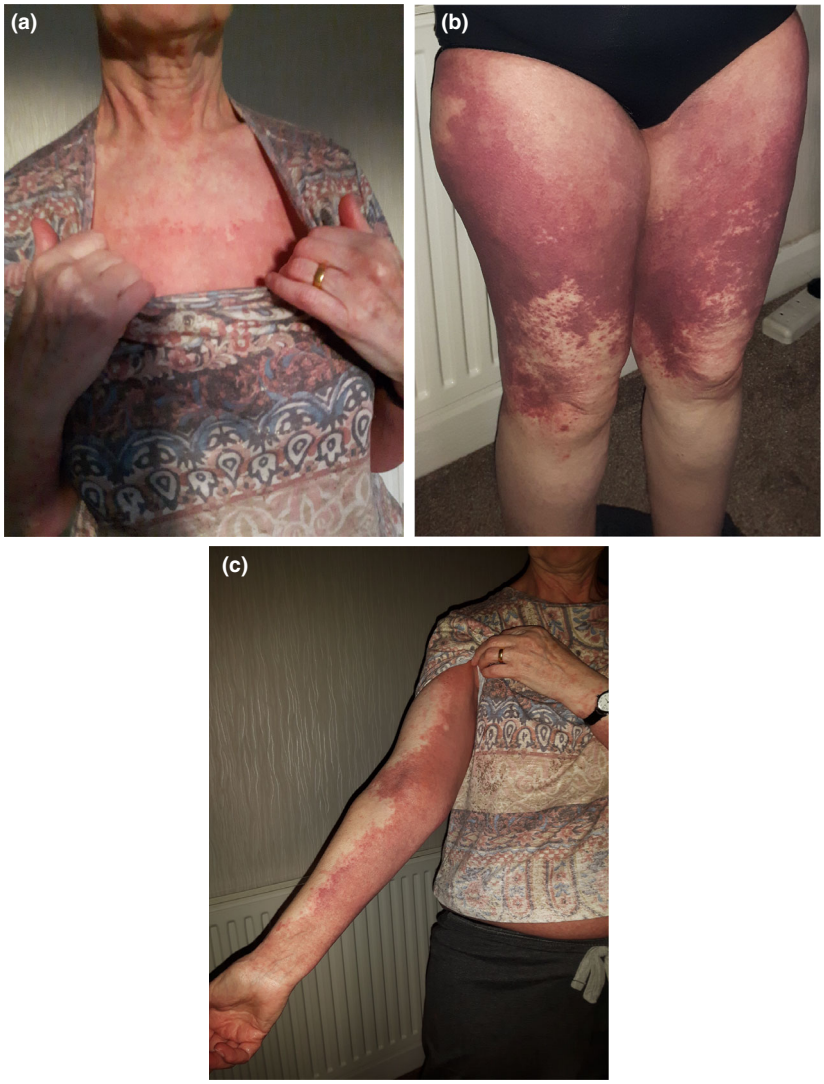

Figure 1 Well-demarcated areas of erythema, extending from the patient's (a) trunk to her (b) upper thighs, and (c) the inner aspect of her arms.

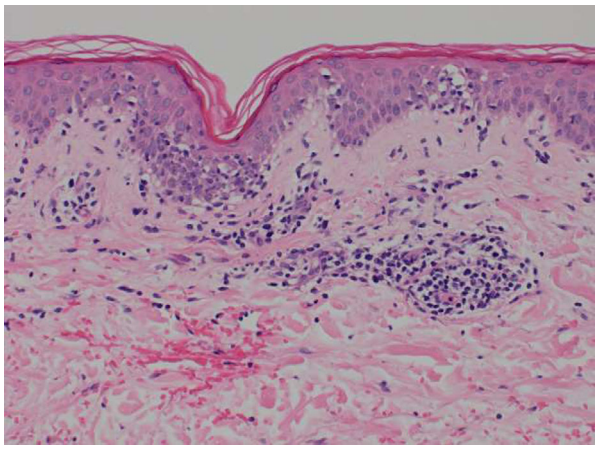

Figure 2 Widespread epidermal lymphocyte exocytosis associated with prominent spongiosis and red blood cell extravasation consistent with a viral exanthem. There was evidence of prominent interface dermatitis and marked oedema in the papillary dermis and prominent perivascular infiltrate of lymphocytes in the upper dermis. Haematoxylin and eosin, original magnification × 200.

presenting as widespread macular toxic erythema in the absence of systemic symptoms. We consider it important to recognize COVID-19 infection as a differential for a toxic exanthemous skin eruption during this pandemic, especially in the context of novel treatments that may improve mortality.

M. K. Hunjan,[1] L. Zuzarte,[1] A. Bardhan,[1,2] S. Karim[3] and A. H. M Heagerty[1,2]
[1]*Department of Dermatology, Solihull Hospital, University Hospitals Birmingham NHS Trust, Birmingham, UK;* [2]*University of Birmingham, Institute of Inflammation and Ageing, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK and* [3]*Department of Histopathology, University Hospitals Birmingham NHS Trust, Birmingham, UK*
E-mail: manruphunjan@hotmail.com
Conflict of interest: the authors declare that they have no conflicts of interest.
MKH and LZ contributed equally to this work and should be considered joint first authors.
Accepted for publication 21 January 2021

References

1 Galván Casas C, Català A, Carretero Hernández G *et al.* Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. *Br J Dermatol* 2020; **183**: 71–7.
2 Seirafianpour F, Sodagar S, Pour Mohammad A *et al.* Cutaneous manifestations and considerations in COVID-19 pandemic: a systematic review. *Dermatol Ther* 2020; **33**: e13986.
3 Zhao Q, Fang X, Pang Z *et al.* COVID-19 and cutaneous manifestations: a systematic review. *J Eur Acad Dermatol Venereol* 2020; **34**: 2505–10.
4 Li H, Zhao Y, Zhou L, Hu J. Cutaneous, skin histopathological manifestations and relationship to COVID-19 infection patients. *Dermatol Ther* 2020; **33**: e14157.
5 Catalá Gonzalo A, Galván Casas C. COVID-19 and the skin. *Actas Dermosifiliogr* 2020; **111**: 447–9.

Dealing with suspended new routine general dermatology referrals during the COVID-19 pandemic: a virtual model from our local departmental experience

doi: 10.1111/ced.14580

The burden of skin disease is reflected in ever-increasing waiting times for specialist care.[1–3] The COVID-19 pandemic brought further unexpected disarray, with all routine outpatient clinical activity coming to an abrupt halt, obligating dermatology departments across the UK to rethink models of care.

We looked at 381 routine general primary care referrals to our dermatology department made between August and October 2019. All routine face-to-face (FTF) clinics in this department had been suspended since March 2020 due to COVID-19, creating an unpredictable delay for this patient cohort. We devised a triage model with the aim of bypassing the need for FTF consultation in most cases. All referrals were assessed by a consultant dermatologist and streamlined into one of three groups: (i) those who would need to be seen FTF; (ii) those suitable for clinical photographs and a telephone consultation; and (iii) those suitable for a telephone consultation without images. Clinical photographs were preferred to video consultations because of the superior image resolution and availability of technology.

Only 23% (88/381) of referrals were triaged to an FTF consultation. This essentially comprised cases considered inappropriate for clinical photography (such as genital dermatoses) or those with absent or subtle cutaneous signs. Illustrative examples of the latter include generalized pruritus, for which physical examination is required in order to identify subtle xerosis or even scabies infestation, and psychocutaneous disorders such as delusional infestations, which are unlikely to yield photographic clues and for which the diagnosis is usually one of exclusion, requiring an initial physical examination at the very least. Hair disorders can also be challenging, and virtual assessment limits the opportunity for trichoscopy and for assessing hair density across the scalp.

The majority of referrals were triaged for virtual consultation (Table 1). Of these, 64% (244/381) were triaged into the second group, which required administrative staff to contact patients and request photographs via a secure National Health Service email address. Images were subsequently uploaded onto the electronic patient record and

