

cuniculati, which arise when an exogenous hair penetrates the skin and remains dormant for a period of time.<sup>1</sup> We would like to report a case of ectopic hair that should be considered as another differential in the diagnosis of pili migrans.

A 30-year-old man presented with a painful callosity located on his left sole. He was otherwise healthy. Under the diagnosis of callosity, the patient underwent several sessions of spray cryotherapy without marked improvement.

Dermatological examination revealed a hyperkeratotic lesion with a central core (Fig. 1a) while dermoscopy (FotoFinder Systems, Bad Birnbach, Germany) showed a terminal hair shaft emerging from the centre of the lesion (Fig. 1b). A preliminary diagnosis of pili migrans was made, and the lesion was surgically removed.

Histopathological examination of a biopsy specimen taken from the lesion showed a terminal hair follicle and hair shaft associated with an acanthotic epidermis displaying hyperkeratosis and focal parakeratosis (Fig. 1c). Mild perifollicular lymphocytic infiltration was also observed (Fig. 1d).

Taking into account the dermoscopic and histopathological findings, a diagnosis of 'ectopic hair' was made. The main differential diagnosis was pili migrans, which is characterized by a fragment of hair embedded in the superficial layer of the skin.<sup>2</sup> To our knowledge, no hair follicles have been reported previously for this entity and no previous reports have described a histopathologically confirmed case of ectopic hair in palmo-plantar skin.

We hypothesized that ectopic hair follicle germ cells located in the plantar skin may have been activated following the chronic repetitive microtrauma and produced a hair shaft. The presence of callosity-like tissue overlying the ectopic hair may support the role of trauma.

In this particular case, dermoscopic examination allowed an accurate diagnosis after several unsuccessful attempts of treatment with cryotherapy following the misdiagnosis of callosity. Dermoscopy may be a useful adjunctive tool in the differential diagnosis of recalcitrant plantar lesions, as it is in many more cutaneous conditions.

Ö. F. Elmas,<sup>1</sup>  E. Z. Coşkunoglu<sup>2</sup> and M. Durdu<sup>3</sup> 

<sup>1</sup>Department of Dermatology, Kırıkkale University, Kırıkkale;

<sup>2</sup>Departments of Pathology, Başkent University, Ankara and

<sup>3</sup>Department of Dermatology, Başkent University, Adana Hospital, Adana, Turkey

E-mail: omerfarukmd@gmail.com

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## Periorbital erythema is a common cutaneous manifestation in COVID-19

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Dear Editor,

We read with great interest the recent elaborate review on the skin manifestations of COVID-19 in children by Andina *et al.*,<sup>1</sup> published recently in *Clinical and Experimental Dermatology*.

In general, the cutaneous manifestations of COVID-19 are polymorphic nature. The cutaneous symptoms can be classified as: (i) urticarial rash, (ii) confluent erythematous/maculopapular/morbilloform rash, (iii) papulovesicular exanthem, (iv) chilblain-like acral pattern, (v) livedo reticularis/racemosa-like pattern and (vi) purpuric 'vasculitic' pattern.<sup>2</sup> Various cutaneous manifestations of COVID-19 including erythema multiforme, urticaria and Kawasaki disease-like lesions were well discussed in the review,<sup>1</sup> although one feature that we commonly observed in our case series<sup>3</sup> was missing, namely, periorbital erythema.

A recent article by Young *et al.*<sup>4</sup> stated that the rate of periorbital erythema in patients with COVID-19 infections could be as high as 20%. We believe that periorbital erythema should also be mentioned in this comprehensive review, as this paper has the potential for being a



**Figure 1** Periorbital erythema in a 6-year-old girl with positive IgG for COVID-19, presenting with the classic symptoms of multisystem inflammatory syndrome.

primary resource on the cutaneous manifestations of COVID-19.

We would like to share the image of one of our patients in order to enrich the review's collection (Fig. 1). This 6-year-old girl presented with the classic symptoms of multisystem inflammatory syndrome in children, including fever, abdominal pain, erythematous rash, conjunctival congestion and strawberry tongue. The levels of acute-phase reactants (ferritin, interleukin-6, procalcitonin and C-reactive protein) were markedly increased, and COVID-19 IgG was positive. The rashes started to fade on the fifth day of immunomodulatory treatment, and the treatment was stopped on the tenth day.

**K. Terzi,<sup>1</sup> S. Kesici,<sup>1</sup> Y. Özsürekcı<sup>2</sup> and B. Bayrakcı<sup>1</sup>**

<sup>1</sup>*Pediatric Intensive Care Unit, Hacettepe University İhsan Doğramacı Children's Hospital, Ankara, Turkey and* <sup>2</sup>*Department of Pediatric Infectious Diseases, Hacettepe University İhsan Doğramacı Children's Hospital, Ankara, Turkey*

E-mail: kvnctrz@gmail.com

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## Wifi-enabled dermatoscopy: what is the potential in clinical practice and education?

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Dear Editor,

Wifi (wireless fidelity) is a wireless networking technology that operates without cables or wiring. Various computing devices, such as mobile phones, laptops, desktop computers and smart televisions are inherently wifi-enabled. Compared with conventional dermatoscopy, the use of wifi in dermatoscopes is relatively unexplored. Wifi routers

attached to dermatoscopes can send and receive data from other devices in the form of radiofrequency waves. Thus, the incorporation of wifi support in dermatoscopes presents the possibility of minimizing the number of attached devices (e.g. mobile phone/digital camera connected via an adapter) required to capture and store images during dermatoscopy, as the wifi router can be utilized to connect the dermatoscope with such devices. The functional distance between the dermatoscope and computing device is determined by the strength of the wifi router.

We share our experience of using a wifi-enabled video-dermatoscope (Dino-Lite AF4515ZT; AnMo Electronics Corporation, Taipei, Taiwan) at a single academic centre. The use of this technology was fuelled by a need to adapt our clinical practice and teaching during the COVID-19 pandemic. Adequate precautions, in accordance with infection control guidelines available at the time, were taken during dermatoscopy.<sup>1–4</sup>

Dermoscopy was performed by one examiner, using adequate personal protective equipment, with a wifi-enabled dermatoscope. This dermatoscope was connected to a monitoring screen located at a distance from the examination station (Fig. 1). The dermatoscope was simultaneously connected to multiple devices so as to be available to other dermatologists/physicians while maintaining social distancing. The live dermatoscopy image was projected onto all the screens (Fig. 2). Given that opinions from one or more experts improves the diagnostic yield of dermatoscopy, multiscreen projection enables dermatologists to make shared diagnoses or decisions during dermatoscopy. Although, up to 10 devices can be connected at any particular time, our experience shows that as the number of connected devices increases, transmission speed decreases, creating a lag in image transmission to all devices. This had a disappointing outcome, especially if the examiner moved the dermatoscope to a different location while the previous images had not yet loaded for the other remotely located physicians. We found that up to three to five simultaneously connected devices were optimal for image transmission without an appreciable lag. In addition, this method facilitated continued 'live' dermatoscopy teaching for dermatology residents while respecting social distancing regulations.

A dermatoscope has become an essential tool in current dermatology practice. As an instrument, it has seen many technological advancements that have improved its diagnostic potential and increased its acceptance among dermatologists. The shift from nonpolarized light to polarized light and from contact to noncontact dermatoscopy, and the availability of attachments for smartphones are some of the examples that have augmented the practice of dermatoscopy, which is constantly improving, even during the COVID-19 pandemic. Clinicians have used teledermoscopy and home-based dermatoscopy during these challenging times.<sup>5,6</sup> The impediments to