Dermoscopy in general dermatology: a ‘Delphinitive’ step forward

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Dermoscopy plays a key role in the diagnosis of skin neoplasms. The actual acknowledgment of dermoscopy in the field of skin cancer is the result of a large number of clinical studies, with a sufficient level of evidence, as summarized recently in two Cochrane reviews, one on the diagnosis of melanoma, and the other on the diagnosis of basal cell carcinoma.\(^1\,\,^2\) In addition, several consensus conferences have been held under the umbrella of the International Dermoscopy Society to standardize the terminology of dermoscopy of skin neoplasms.\(^3\,\,^4\)

The need for easily applicable noninvasive techniques (i.e. dermoscopy) to support clinical diagnosis and differential diagnosis of skin cancer has increased progressively during the last few years. Unfortunately, compared with dermoscopy of skin neoplasms, dermoscopy in general dermatology – meaning dermoscopy of non-neoplastic dermatoses, such as inflammatory, infectious or infiltrative dermatoses – has been somewhat left behind. There have been success stories, such as dermoscopy for the diagnosis of scabies, which was validated in a prospective comparative study\(^5\) and which has since become widely used, but you cannot see the forest for the trees, and a majority of publications about dermoscopy in general dermatology still have a low level of evidence. One reason for this situation is the lack of standardized parameters that should be analysed systematically with a dermoscope when looking at an inflammatory, infectious or infiltrative lesion. Another reason is the extremely abundant dermoscopic terminology,\(^6\) including a mixture of descriptive (e.g. ‘follicular plugs’) and metaphorical terms (e.g. ‘yellow tears’) to name the same dermoscopic sign.

In this issue of the BJD, Errichetti et al.\(^8\) report the standardization of dermoscopic terminology and parameters in general (non-neoplastic) dermatology, using a modified Delphi consensus method. The Delphi method is based on the assumption that group judgements are more valid than individual judgements. It is a systematic technique relying on a structured process that uses successive questionnaires submitted to a panel of experts until a consensus is reached.\(^7\) A large group of experts from different geographic areas can be included and provide their opinion independently. First used in science and technology, the Delphi method is becoming increasingly popular in medicine (267 hits in PubMed in 2008 and 1197 in 2018). For the record, the term ‘Delphi method’ originates from the Greek city of Delphi where Pythia the oracle of Delphi used to deliver prophecies.

In the study of Errichetti et al., 24 dermoscopy experts took part in a three-round Delphi process.\(^6\) Surprisingly, the dropout rate of contacted experts was quite high (14 of 38) but the number of remaining experts was still above the recommended threshold of 20. At the end of the Delphi process an agreement was reached for five basic parameters: (i) vessels (including morphology and distribution); (ii) scales (including colour and distribution); (iii) follicular findings; (iv) ‘other structures’ (including colour and morphology); and (v) ‘specific clues’. Then, for each parameter, possible variables are selected, e.g. for vessel morphology: dotted, linear, linear with branches, and linear curved. For example, using this classification, a typical psoriatic plaque can be described consistently by dermoscopy as a lesion composed of dotted vessels with a uniform distribution, associated with white scales with a diffuse distribution. On the other hand, a dermatitis patch can be described reproducibly by dermoscopy as a lesion with dotted vessels with a clustered distribution, associated with yellow scales with a patchy distribution.

Comprehension by the reader of this new terminology is facilitated by a large number of high-quality figures in the manuscript. Unfortunately, the consensus could not address non-neoplastic conditions of nail, mucosae and hair/scalp (trichoscopy), as they have their own vocabulary/semiology.

This study represents an important step for dermoscopy in general dermatology because it provides an agreed collection of dermoscopic parameters and variables to be analysed. By doing so, dermoscopy now meets the current trend for standardization observed in other fields of dermatology, such as the development of core outcome sets, an agreed collection of outcomes that should be measured and reported in clinical trials for a specific clinical area.\(^6\)

A consensus seeks a workable compromise but does not guarantee its implementation. Therefore, it is hoped that through publication in the BJD, the tool this consensus provides will be adopted by a large number of dermatologists dealing with dermoscopy of non-neoplastic dermatoses to improve clinical practice and clinical studies. It is also hoped that it will encourage a number of dermatologists used to examining neoplastic lesions to additionally examine non-neoplastic lesions with a dermoscope. Finally, this consensus could represent the first step for the project of a routinely applicable diagnostic algorithm in general dermoscopy. The next step will be to conduct feasibility and validity testing of these newly established dermoscopic parameters under real-world clinical conditions.
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