



EDITORIAL

Dermoscopy: Where are we?

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Dermoscopy, which is also called “epiluminescent microscopy” or “amplified surface microscopy”, refers to the analysis of skin lesions using a microscopy device called dermatoscope^[1]. Dermoscopy acts as an aid in the diagnosis of skin lesions^[2]. It must not be used in isolation but instead combined with a good analysis of medical history and a keen naked eye examination. Dermoscopy is mostly used to assess pigmented skin lesions. It can reduce referrals and also avoid unnecessary skin surgery when the dermoscopy is done in primary care units. In skilled hands, it makes a much easier effort to diagnose malignant melanomas.

Dermoscopy needs high-quality magnifying lens and a prevailing lighting system which permits easy examination of skin structures and patterns of the lesions^[3]. Significant technological advances have occurred since the first introduction of dermatoscopes in the 1980s^[4], which includes many different lightweight, battery-powered, and handheld devices. Appropriate attachments even allow video recordings and photography.

All second-generation devices have heightened optical qualities that use general light emitting diodes (LEDs) for lighting. Two types of dermatoscopes are available: those that use non-polarized light with liquid immersion, and those that use polarized light. LED dermatoscopes have increased diagnostic precision by up to 30%, compared to clinical naked eye examinations – depending on the type of skin lesion and skill of the

practitioner^[5]. A new CASH algorithm for dermoscopy has recently been defined^[6,7], which uses the criteria of color, architecture, symmetry, and homogeneity. Vascular arrangements of skin lesions have also gained more significance in dermoscopy in recent years^[5].

Computer software can be employed to archive dermoscopy pictures to enable professional diagnosis and report mole mapping. Smart programs may assist in diagnosis by comparing the new image from deposited cases with typical features of benign and malignant pigmented skin lesions.

For a long time, the use of dermoscopy has been restricted to the diagnosis of melanoma and to the differential diagnoses of pigmented lesions. The routine use of dermoscopy in general dermatology has recently been discussed^[8].

For instance, in 2002, a study on the use of dermoscopy for analysis of nail pigmentation was published^[9]. Similar to a pigmented lesion, as a first step, one has to determine if the nail pigment is of melanocytic origin or not (bloody or fungal). In nail pigmentation of non-melanocytic origin, it is homogeneous without any granules in the nail plate. The pigment of subungual hematoma depends on the time of injury to the nail. Hematoma will progressively come out distally as the nail grows but the presence of subungual blood should not necessarily rule out the diagnosis of melanoma. Every subungual hemorrhage that does not

grow out with the nail, and that returns to the same place, needs special attention and presents suspicion of malignancy. A regular pattern of pigments indicates the existence of a benign lesion such as a nevus. Irregular pattern of brown pigments with no parallelism and uneven spacing and thickness is suggestive of a malignant melanoma^[10].

The use of dermoscopy for the diagnosis of hair and scalp illnesses has also been recently described. Numerous disorders of the hair and scalp are assessed and specific dermoscopic findings are debated^[11].

Dermoscopy is a prospering non-invasive technique of skin imaging. It changes the diagnosis of skin cancers especially malignant melanoma and other cutaneous illnesses such as psoriasis, lichen planus, scabies, and hair disorders. Dermoscopy not only empowers optical magnification of a skin lesion but also allows partial visual penetration through the epidermis. Due to this capability, it is sometimes called a process between clinical assessment and histologic analysis. Dermoscopy is a new technique that has recently been maturing but it will be a new and flourishing component and an inseparable part of modern dermatology and dermatologic surgery.

Conflict of interest

The author declared no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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