VivaScope

Overview

Diagnosis tools for cutaneous melanoma

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ABSTRACT

BACKGROUND: A number of new tools have been developed in the last ten years to improve the diagnosis of cutaneous melanoma.

AIMS: To review the value of diagnostic tools for cutaneous melanoma in a clinical setting.

METHODS: Review of multiple databases from 1987 to 2007 and classification of publications in terms of level of evidence according to "The Australian Cancer Network".

RESULTS: Dermoscopy has superior specificity and sensitivity to naked-eye examination according to a meta-analysis of nine level-2 studies. Sequential digital dermoscopic imaging allowed detection of melanoma in the absence of dermoscopic evidence of melanoma in four level-2 studies. Total body photography, generally performed for high-risk patients, seems to be equally valuable but has the additional advantage of allowing self-examination by patients themselves. Dermographic photographs with computer-assisted diagnosis of primary melanoma appear to have equivalent diagnostic capacity to experts but very few studies have been performed in a clinical setting. Optical methods still under development yield in vivo information that is closely correlated with histopathology data and may avoid unnecessary excision while providing improved control of excision margins. They will doubtless be used as a second-line method after clinical detection of suspect lesions and history-taking, which will continue to be primordial regardless of the other tools available.