

Clinical and dermatoscopic criteria for the preoperative evaluation of cutaneous melanoma thickness (Article)

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Abstract

Background: Melanoma thickness measured according to the Breslow method is used to determine surgical margin and in patient selection for sentinel node biopsy. Previous studies did not confirm the reliability of melanoma palpability for clinical prediction of tumor thickness. Recently we reported the usefulness of epiluminescence microscopy (dermatoscopy) for in vivo detection of the phases of melanoma progression, as well as tumor depth. **Objective:** Our purpose was to determine whether the combination of clinical and dermatoscopic criteria could increase the accuracy in preoperative evaluation of melanoma thickness with respect to the clinical elevation and dermatoscopic assessments considered separately. **Methods:** In a blind retrospective study, 122 cutaneous melanomas were studied to evaluate the presence of several clinical and dermatoscopic criteria and their relation with the histologic thickness. An algorithm of combined criteria was constructed and statistically assessed. **Results:** Combinations of palpability, diameter of more than 15 mm, pigment network, gray-blue areas, and atypical vascular pattern allowed correct prediction of thickness in 89% of melanomas when categorized in two groups of less than 0.76 mm and more than 0.75 mm thickness, compared with 75% using palpability, and 80% using dermatoscopic criteria. Lower values were obtained in the further subdivision of melanomas into groups of 0.76 to 1.5 mm and more than 1.5 mm thickness. **Conclusion:** The combination of clinical and dermatoscopic criteria is a more precise guide for the preoperative evaluation of melanoma thickness than either is alone. However, further studies are needed to verify its applicability in establishing the surgical approach to cutaneous melanoma.