Reviewer's report

Title: Computer-aided dermoscopy for diagnosis of malignant melanoma

Version: 1 Date: 24 March 2005

Reviewer: Ketty Peris

Reviewer's report:

General
The authors describe the sensitivity and specificity of a computer-aided dermoscopy system (microDERM) for the diagnosis of melanoma in Iranian patients.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1) The authors examined 122 pigmented skin lesions in order to determine the sensitivity and specificity of the melanoma diagnosis using a computer-aided system. They found that clinical and dermoscopic diagnosis had 83%-100% sensitivity and 90-96% specificity. However, the low overall number of melanomas (12 of 122 lesions) and lesions with an equivocal clinical and/or dermoscopic diagnosis (so-called simulators of melanoma) might explain their high values of sensitivity and specificity.
2) Method. The authors should specify in the text the clinical and dermoscopic diagnoses of the pigmented skin lesions included in their study and not to illustrate them only in Table 1. How was the interobserver agreement between the two physicians (an attending dermatologist and a 3rd year resident) regarding the clinical diagnoses of melanoma or suspected melanoma?
3) The authors report an output value of the software ranging from 0 to 10. They should better specify how they established the cut-off point of 7.88 and 7.34 and what is their meaning.
4) Were the lesions included in their study randomly or consecutively selected?
5) The authors should further clarify what is the difference between a suspected melanoma and a most likely clinical diagnosis of melanoma. Does it mean that in the second case, the final clinical and/or dermoscopic diagnosis was melanoma?
6) Discussion would benefit of more exhaustive data on dermoscopy and automated-aided diagnosis and advantage of their system as compared to those reported in the literature or commercially available.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
malignant melanoma should be simply reconsidered as melanoma.

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable
Statistical review: No

Declaration of competing interests:
I declare I have no competing interest.