The role of in vivo confocal microscopy in the diagnosis of eyelid margin tumors: 47 cases.


ABSTRACT
BACKGROUND: Handheld in vivo reflectance confocal microscopy (IVCM) is a new imaging method that allows noninvasive diagnosis of cutaneous tumors but to date it has not been used in the study of eyelid tumors. OBJECTIVE: We sought to evaluate the suitability of IVCM for eyelid margin tumors.
METHODS: We prospectively evaluated the IVCM features of 47 eyelid margin lesions, clinically suspicious of malignancy; 35 of these were excised whereas the other 12, with no IVCM malignant features, were followed up for at least 1 year. Clinical, IVCM, and histologic diagnoses were compared.
RESULTS: IVCM showed sensitivity and specificity of 100% and 69.2%, respectively, for malignancy (basal cell carcinoma, squamous cell carcinoma, and melanoma). The follow-up of the 12 nonexcised lesions did not show any clinical progression. LIMITATIONS: The lesions showing neither clinical nor IVCM features for malignancies were not biopsied in view of the potential functional and aesthetic consequences of eyelid margin surgery. CONCLUSION: Used with a handheld dermatology-specific microscope, IVCM can play a role in the noninvasive diagnosis of eyelid margin lesions. Further studies are needed to better define diagnostic criteria of eyelid tumors and improve the specificity of this technique.