



DERMATOLOGICAL SURGERY

QUO VADIS, MOHS SURGERY?

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Background: Three-dimensional microscopic evaluation of excision margins helps to lower the number of recurrences of skin tumors, including basal cell carcinoma, squamous cell carcinoma and other cutaneous neoplasms. Fast and simple, intraoperative ex vivo confocal microscopic evaluation of skin tumors together with its subtype determination would accelerate diagnostic and therapeutic procedures in dermatology including Mohs surgery.

Objective: Assessing whether simplified ex vivo confocal microscopic examination can reliably predict diagnosis of most frequent skin tumors including basal cell carcinoma, squamous cell carcinoma and melanoma.

Materials and Methods: Confocal images of 116 basal cell carcinomas, 102 squamous cell carcinomas as well as 31 samples of various melanocytic lesions were evaluated for the presence of predefined criteria. Data analysis followed.

Results: Our results demonstrate that ex vivo confocal microscopy enables to diagnose main basal cell carcinoma subtypes, to distinguish carcinoma in situ from invasive squamous cell carcinoma and to examine melanocytic skin tumors including melanoma.

Conclusions: In conclusion, ex vivo confocal microscopy has proved a valuable diagnostic tool with advantages like time and cost saving surgery, but also limitations like the lack of specific staining.

