## VivaScope

## Medical > Ex Vivo > Non-Melanoma Skin Cancer

## **Evaluating ex vivo fluorescence confocal microscopy images of basal cell** carcinomas in Mohs excised tissue.

Longo C, Rajadhyaksha M, Ragazzi M, Nehal K, Gardini S, Moscarella E, Lallas A, Zalaudek I, Piana S, Argenziano G, Pellacani G.; Br J Dermatol. 2014 Apr 21. doi: 10.1111/bjd.13070.

## ABSTRACT

**BACKGROUND:** Fluorescence confocal microscopy (FCM) is an emerging technology for rapid imaging of excised tissue, without the need for frozen or fixed section processing. Basal cell carcinomas (BCCs) can be detected in Mohs excisions although few studies have described the major BCC-findings as seen upon FCM. **OBJECTIVES:** To describe the major BCC-findings of excised tissue during Mohs surgery and to correlate them with histopathology.

**METHODS:** Freshly excised tumors and frozen-thawed discarded tissue of BCC during Mohs surgery were analyzed by means of FCM. A side-by-side correlation between FCM images and histologic sections was performed. The FCM features of overlying skin and adnexal structures were also described.

**RESULTS:** 64 BCC cases were analyzed. Distinct BCC types appeared unique in term of shape and size of tumor islands (bigger in nodular (18/25), smaller and rounded in micronodular (7/7) and tiny cords for infiltrative ones (24/30)) and for the presence of clefting, palisading and increased nucleus/cytoplasm ratio. An excellent correlation was found between FCM and histologic findings (Cohen's Kappa statistics = 0.9). In 6 cases, the presence of sebaceous glands and intense stroma reaction represented possible confounders. **CONCLUSIONS:** FCM is a fast and new imaging technique that allows an excellent visualization of skin structures and BCC-findings during Mohs surgery. This article is protected by copyright. All rights reserved.