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**'En face' ex vivo reflectance confocal microscopy to help the surgery of basal cell carcinoma of the eyelid.**

*Espinasse M, Cinotti E, Grivet D, Labeille B, Prade V, Douchet C, Cambazard F, Thuret G, Gain P, Perrot JL. Clin Exp Ophthalmol. 2016 Dec 19. doi: 10.1111/ceo.12904.*

### **ABSTRACT**

**BACKGROUND:** Ex vivo confocal microscopy is a recent imaging technique for the perioperative control of skin tumour margins. Up to date, it has been used in the fluorescence mode and with vertical sections of the specimen margins. The aim of this study was to evaluate its use in the reflectance mode and with a horizontal ('en face') scanning of the surgical specimen in a series of basal cell carcinoma of the eyelid.

**DESIGN:** Prospective consecutive cohort study was performed at the University Hospital of Saint-Etienne, France. **PARTICIPANTS:** Forty-one patients with 42 basal cell carcinoma of the eyelid participated in this study. **METHODS:** Basal cell carcinomas were excised with a 2-mm-wide clinically safe margin. The surgical specimens were analysed under ex vivo confocal microscopy in the reflectance mode and with an en face scanning in order to control at a microscopic level if the margins were free from tumour invasion.

Histopathological examination was later performed in order to compare the results. **MAIN OUTCOME MEASURES:** Sensitivity and specificity of ex vivo confocal microscopy for the presence of tumour-free margins. **RESULTS:** Ex vivo confocal microscopy results were consistent with histopathology in all cases (tumour-free margins in 40 out of 42 samples; sensitivity and specificity of 100%). **CONCLUSIONS:** Ex vivo confocal microscopy in the reflectance mode with an 'en face' scanning can control tumour margins of eyelid basal cell carcinomas and optimize their surgical management. This procedure has the advantage on the fluorescent mode of not needing any contrast agent to examine the samples. © 2016 Royal Australian and New Zealand College of Ophthalmologists. **KEYWORDS:** basal cell carcinoma; confocal microscopy; eyelid; imaging; surgery PMID:27990744 DOI:10.1111/ceo.12904