Medical > Ex Vivo > Non-Melanoma Skin Cancer

34 | Confocal microscopy to guide laser ablation of basal cell carcinoma: a preliminary feasibility study

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ABSTRACT

Laser ablation may be a promising method for removal of skin lesions, with the potential for better cosmetic outcomesand reduced scarring and infection. An obstacle to implementing laser ablation is that the treatment leaves no tissue forhistopathological analysis. Pre-operative and intra-operative mapping of BCCs using confocal microscopy may guide theablation of the tumor until all tumor is removed. We demonstrate preliminary feasibility of confocal microscopy to guidelaser ablation of BCCs in freshly excised tissue from Mohs surgery. A 2940 nm Er:YAG laser provides efficient ablationof tumor with reduced thermal damage to the surrounding tissue.