

Evaluation of Skin Pathologies Through Confocal Fluorescence Laser Microscopy and Muller Microscopy

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Our work explores the comparison between evaluation of various types of skin pathologies through confocal fluorescence laser microscopy and Muller microscopy. The focus is primarily on three major types of skin cancer, including basal cell carcinoma, squamous cell carcinoma, and malignant melanoma. Additionally, the study investigates different degenerative diseases that impact collagen quantities and structure, specifically lupus erythematosus, scleroderma and Syndrome of Raynaud.

Both confocal fluorescence laser microscopy and Muller microscopy offer valuable insights into the cellular and structural changes associated with these skin pathologies. Confocal fluorescence laser microscopy provides imaging of endogenous fluorophores with diagnostic meaning. On the other hand, Muller microscopy utilizes polarized light to visualize structural fibers and assess their integrity and arrangement within the skin tissue.

The findings of this comparative study will contribute to enhancing our understanding of the diagnostic capabilities and potential applications of both techniques in the context of diagnosis and better understanding of the pathogenesis of skin cancer and degenerative diseases affecting collagen. This information can assist healthcare professionals and researchers in making well-informed choices when it comes to selecting the most suitable microscopy techniques for precise and efficient diagnosis, monitoring, and evaluation of treatment outcomes for these skin conditions.

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