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The application of dermal papillary rings in dermatology by in vivo confocal laser scanning microscopy

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## **ABSTRACT**

Confocal laser scanning microscopy (CLSM) allows noninvasive visualization of human skin in vivo, without needing to fix or Confocal laser scanning microscopy (CLSM) allows noninvasive visualization of human skin in vivo, without needing to fix or section the tissue. Melanocytes and pigmented keratinocytes at the level of the basal layer form bright dermal papillary rings section the tissue. Melanocytes and pigmented keratinocytes at the level of the basal layer form bright dermal papillary rings which are readily amenable to identify in confocal images. Our purpose was to explore the role of dermal papillary rings in which are readily amenable to identify in confocal images. Our purpose was to explore the role of dermal papillary rings in assessment of lesion location, the diagnosis, differential diagnosis of lesions and assessment of therapeutic efficacy by assessment of lesion location, the diagnosis, differential diagnosis of lesions and assessment of therapeutic efficacy by in vivo CLSM. Seventy-one patients were imaged with the VivaScope 1500 reflectance confocal microscope provided by Lucid, in vivo CLSM. Seventy-one patients were imaged with the VivaScope 1500 reflectance confocal microscope provided by Lucid, Inc. The results indicate that dermal papillary rings can assess the location of lesion; the application of dermal papillary Inc. The results indicate that dermal papillary rings can assess the location of lesion; the application of dermal papillary rings can provide diagnostic support and differential diagnosis for vitiligo, nevus depigmentosus, tinea versicolor, halo rings can provide diagnostic support and differential diagnosis for vitiligo, nevus depigmentosus, tinea versicolor, halo nevus, common nevi, and assess the therapeutic efficacy of NBUVB phototherapy plus topical 0.1 percent tacrolimus ointment nevus, common nevi, and assess the therapeutic efficacy of NBUVB phototherapy plus topical 0.1 percent tacrolimus ointment for vitiligo. In conclusion, our findings indicate that the dermal papillary rings play an important role in the assessment for vitiligo. In conclusion, our findings indicate that the dermal papillary rings play an important role in the assessment the location of lesion, diagnosis, differential diagnosis of lesions and assessment of therapeutic efficacy by in vivo CLSM. the location of lesion, diagnosis, differential diagnosis of lesions and assessment of therapeutic efficacy by in vivo CLSM. CLSM may be a promising tool for noninvasive examination in dermatology. However, larger studies are needed to expand the CLSM may be a promising tool for noninvasive examination in dermatology. However, larger studies are needed to expand the application of dermal papillary rings in dermatology, application of dermal papillary rings in dermatology.