

AbstractID: 13048 Title: Differentiation of Seborrheic Keratosis and Verruca Plana with Reflectance Confocal Microscopy:A Preliminary Study

Background: Seborrheic keratoses (SK) are the most common benign tumor in older individuals, Sometimes the differentiation of SK and Verruca Plana (VP) is a challenge. Reflectance Confocal Microscopy (RCM) has been proved to be useful in the diagnosis of skin diseases; however, to date, there is no report on the differential study of the two diseases with RCM. Objectives: To investigate whether RCM could be used in the differentiation of SK and VP. Methods: We recruited 10 patients with typical lesions of SK and 10 patients with typical VP lesions, imaged with RCM and biopsied to obtain the features under RCM images based on histology analysis. Then, we attempt to summarize and refine those imaging characteristics collected to obtain the most significant ones. All the cases with lesions suggestive of SK or VP were advised to undergo imaging with RCM, and if RCM imaging reflected discordantly with the clinical diagnosis, a biopsy was suggested for the exact lesion imaged. Those cases with RCM and histology results were collected. Finally, two clinical dermatologists, who had no previous experience with RCM, were tested with the simplified features of RCM images to differentiate the suspected lesions of SK and VP among the cases collected. Results: In total, there were 58 cases with RCM images and histology results collected, in which, 40 cases were diagnosed as SK and 18 cases as VP by histology. The two blinded dermatologists' judgments were identical to histology analysis. Conclusion: RCM proved to be valuable in the differential diagnosis of SK and VP. The simplified characteristics are easily understood and acceptable to those with no previous experience of RCM.

Key words: reflectance confocal microscopy – RCM – seborrheic keratosis – verruca plana