Evaluation of Hepatic Histology by Near-Infrared Confocal Microscopy: A Pilot Study


ABSTRACT

Liver biopsy is a necessary procedure in establishing the tissue diagnosis of many liver conditions and often guides therapeutic strategies. Current histopathologic techniques are either time-consuming or tissue-destroying; hence the potential need for a fast and nondestructive imaging technique of unfixed human liver. This pilot study evaluates the use of near-infrared reflectance confocal microscopy (CM) in the study of human liver histopathology. Without cutting or staining the tissue, CM provides images of bulk parenchyma showing cellular and subcellular detail and depicting morphologic features of hepatic parenchyma in both diseased and nondiseased states. This article presents a series of 12 human liver biopsy samples, providing an overview on the potential of this technique in assessing common findings from light microscopy.