Correlations of laparoscopy with histology and laboratory studies on liver diseases in bariatric patients

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摘要

Abstract

Background Non-alcoholic fatty liver disease is prevalent in obese patients. Liver biopsy remains the best diagnostic tool for confirmation. We evaluated the effectiveness of macroscopic parameters of laparoscopy in diagnosis of liver diseases. Moreover, correlations of laparoscopy with histology and laboratory data were also studied. Methods From December 2004 to April 2006, 126 morbidly obese patients submitted to laparoscopic bariatric surgery at the En-Chu-Kong Hospital were prospectively studied. Results There were correlations of histologic steatosis with liver surface fat spot density, liver margin shape, and liver size. Histologic inflammation was related to liver color, vascularity beneath hepatic capsule, liver margin shape, liver size, and liver surface nodularity. Histologic fibrosis had relations to liver color, liver surface nodularity, liver size, varices of ligamentum teres. Spleen size was related to liver surface nodularity and spleen congestion. Relationships of laboratory data with laparoscopic findings included: aspartate transaminase (AST) level with liver size, alanine transaminase (ALT) level with liver color and liver size, albumin level with liver margin shape and liver surface fibrosis and liver size, total protein level with liver size, alkaline phosphatase (ALP) level with liver surface fibrosis, blood glucose level with liver surface nodularity and spleen size, C-peptide with liver size. Besides, there were relations of γ-GT level with liver color, liver margin shape, liver and spleen size. Conclusion Besides histology and laboratory studies, laparoscopic inspection of the abdominal cavity provides important and additional information, which contributed to the final diagnosis of chronic liver diseases and detection of possible pathology in patients.