

Original Paper

Comparison of specificity and sensitivity of ultrasonography and computed tomography with endoscopic retrograde cholangio pancreatography in diagnosis of biliary tract stones

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Abstract

Background and Objective: Cholelithiasis have concomitant with biliary tract stones (BTS) in about 10-15% of the affected patients. This study was carried out to compare the specificity and the sensitivity of ultrasonography and computed tomography (CT scan) with the endoscopic retrograde cholangio pancreatography (ERCP) for detecting of the biliary tract stones and to evaluate the efficacy of the ERCP therapy.

Methods: In this descriptive study, 135 patients suspected of BTS whom were candidate for the ERCP were gone under investigation. Ultrasonography of the gallbladder, liver, biliary tract, oral and IV contrast of abdominal CT scan and the ERCP were conducted for each patient. ERCP was considered as key criteria to define BTS. The specificity and sensitivity of the ultrasonography and CT scan and the success rate of the therapeutic ERCP was estimated.

Results: BTS were observed in 112 patients by ERCP method. The specificity and sensitivity of the ultrasonography was 72.3% and 73.9%, respectively. The specificity and sensitivity of the CT scan was 50.8% and 91.3%, respectively. The success rate of the therapeutic ERCP was estimated as 76.9%.

Conclusion: Ultrasonography as a non-invasive, non-expensive and well sensitivity method which is recommended in patient screening of biliary tract stones in compare to ERCP and CT scan.

Keywords: Ultrasonography, Computed tomography, ERCP, Biliary Tract Stone

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