Value of serum bilirubin levels in selecting patients for magnetic resonance cholangiopancreatography.

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Source
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Abstract

BACKGROUND/AIMS:
To determine the value of serum bilirubin levels in selecting patients for MRCP.

METHODOLOGY:
The medical records of 142 patients who underwent MRCP between January 2002 and December 2004 were retrospectively reviewed. Clinical features, serum bilirubin levels, and MRCP results were recorded. The patients were categorized into 4 groups, according to serum bilirubin levels and MRCP findings. Bilirubin levels were considered elevated above 23.9 micromol/L for total bilirubin and above 6.8 micromol/L for direct bilirubin. Sensitivity, specificity, accuracy, and predictive values of serum bilirubin levels in identifying pancreatobiliary duct diseases were assessed.

RESULTS:
Complete medical records were found for 135 patients. Abnormal MRCP results were found in 75 patients (56%). Choledocholithiasis and both malignant and benign bile duct strictures represented 40%, 28%, and 23% of abnormal MRCP findings, respectively, with mean values of total and direct serum bilirubin levels of 77.9 +/- 51.6 microM and 34.7 +/- 30.3 microM (for choledocholithiasis), 170 +/- 115 microM and 56 +/- 40 microM (for malignant bile duct stricture), and 44 +/- 32 microM and 20 +/- 16 microM (for benign bile duct stricture), respectively. Sensitivity, specificity, and accuracy of serum bilirubin level tests, for the diagnoses of pancreatobiliary duct diseases, were
77%, 80%, and 79%, respectively; the positive and negative predictive values were 83% and 74%, respectively, and the corresponding likelihood ratios were 3.8 and 0.3.

**CONCLUSIONS:**
Serum bilirubin level tests alone are not sufficiently accurate for the diagnoses of pancreatobiliary duct diseases, and hence, such tests are of low importance in selecting patients for MRCP.