Role of overnight rifampin test in diagnosing Gilbert's syndrome.

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Author information

Abstract

BACKGROUND:

Gilbert's syndrome (GS) is the most common inherited disorder of bilirubin metabolism. Recent data show that the rifampin test can be used as a diagnostic test but there is controversy about its effect on bilirubin level in normal individuals. We studied the effect of administration of rifampin on serum bilirubin level in patients with GS and in healthy individuals.

METHODS:

Serum total and unconjugated bilirubin levels were measured in 16 patients with GS and 15 healthy individuals before and after a single 600-mg oral dose of rifampin.

RESULTS:

In patients with GS, mean (SD) serum total and unconjugated bilirubin level increased from 2.15 (0.49) and 1.56 (0.41) mg/dL, respectively to 3.23 (0.72) (p< 0.001) and 2.52 (0.71) mg/dL (p< 0.001), respectively after rifampin administration, and in healthy subjects from 0.69 (0.13) and 0.34 (0.09) mg/dL, respectively to 1.68 (0.56) (p< 0.001) and 0.84 (0.23) mg/dL (p< 0.001), respectively. Elevation of these levels above the normal cut-off levels had poor accuracy for the diagnosis of GS. However, elevation of total serum bilirubin after rifampin above 2.4 mg/dL was 93.8% sensitive and 93.3% specific for the diagnosis of GS, and elevation of unconjugated bilirubin above 1.3 mg/dL was 100% sensitive and 100% specific.

CONCLUSIONS:

Rifampin elevates bilirubin level to above normal in GS and healthy subjects. Overnight rifampin test may be useful for the diagnosis of GS if cut-off levels for serum total and unconjugated bilirubin level of more than 2.4 and 1.3 mg/dL are used.