Using the 4-hour Post-ERCP Amylase Level to Predict Post-ERCP Pancreatitis

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ABSTRACT

Context Post-ERCP pancreatitis is the most common complication of endoscopic retrograde cholangiopancreatography (ERCP). A simple method of predicting patients who are at risk of developing post-ERCP pancreatitis is needed to allow those at low risk to be discharged on the same day of their procedure. The aim of this study was to confirm that 4-hour post-ERCP serum amylase level is predictive of post-ERCP pancreatitis. Methods A study of 886 ERCPs performed at a single centre was conducted. Four-hour amylase level was recorded, along with patient demographics, procedural details, presence of pancreatogram, and morbidity and mortality. Results Pancreatitis occurred in 4.4% of ERCPs. Hyperamylasaemia was found to be predictive of post-ERCP pancreatitis, with other risk factors being a younger age and pancreatogram. Hyperamylasaemia was also predictive of post-ERCP pancreatitis in the subgroup of patients who had undergone pancreatogram. Conclusions The 4-hour amylase level is a useful measure in the prediction of post-ERCP pancreatitis. Patients who have undergone pancreatogram should be admitted if 4-hour amylase level is greater than 2.5 times upper limit of normal. Patients who have not undergone pancreatogram should be admitted if 4-hour amylase level is greater than five times upper limit of normal.