Abstract:
BACKGROUND: After esophageal/gastric resection with resulting truncal vagotomy, the incidence of gallstone formation seems to increase. The clinical relevance of gallstones and the role of simultaneous/incidental cholecystectomy in this setting are controversially discussed. METHODS: Systematic analysis has been performed for retrospective/prospective studies on the incidence/symptoms of gallstone formation after esophageal/gastric resection. Pooled estimates of the incidence of cholecystectomies were calculated by random effect models. Risk analyses of simultaneous, acute postoperative cholecystectomy and long-term cholecystectomy were performed. RESULTS: Sixteen studies on gallstone formation after upper gastrointestinal (GI) surgery (3,735 patients) reported increased incidences of 5-60% with a pooled estimate of 17.5% (95% confidence interval (CI), 14.1-21.2%; inconsistency statistic (I (2)) = 86%) compared with 4-12% in the control population. In 113 of 3,011 patients (12 studies), late cholecystectomies were performed for symptomatic cholecystolithiasis, corresponding to an estimated overall proportion of 4.7% (95% CI, 2.1-8.2%; I (2) = 92%). In 1.2% (95% CI,>0-3.7%; I (2) = 93%) of patients undergoing upper GI surgery, a cholecystectomy was performed because of acute
postoperative biliary problems (4 studies, 8,748 patients). Simultaneous cholecystectomy had a higher morbidity of 0.95% (95% CI, 0.54-1.49%; I (2) = 28%) compared with the calculated additional morbidity of early and late cholecystectomy of 0.45%. CONCLUSIONS: Approximately 6% of patients undergoing upper GI surgery are expected to require cholecystectomy during follow-up. Because late cholecystectomies can be performed safely and because the additional calculated morbidity for these operations is lower than the morbidity for simultaneous cholecystectomy, it cannot generally be recommended to remove a normal acalculous gallbladder during upper GI surgery.