

Selective Intraoperative Cholangiography in Laparoscopic Cholecystectomy

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Abstract

Introduction: Laparoscopic cholecystectomy (LC) is probably one of the most frequent surgical procedure performed worldwide. Intraoperative cholangiography (IOC) is required more often than in open procedures due to the need to clarify the anatomy or to diagnose common bile duct (CBD) stones.

Aim: The present study analyzes the value of IOC performed on selective basis following preoperative and intraoperative criteria. Our experience covers 15 years of surgical activity in Elias Surgery Department and, as a result of a continuous scientific concern on the matter, we developed a set of criteria that are analyzed and discussed.

Material and method: We studied the patients subjected to LC in our department between January 2013 and December 2014. A group of 945 patients was analyzed; IOC was performed in 147 cases. All IOC were selective procedures. The criteria were divided in two groups: · Preoperative criteria (clinical, lab tests and imaging findings); · Intraoperative criteria (dilated biliary ducts and obscure biliary anatomy).

Results: IOC was performed in 147 cases. We had a positive result, a finding that changed surgical management of the patient after IOC in over 50% of cases. The biliary tree anatomy was cleared in 100% of cases. IOC required a median period of time of 11 minutes. There were no complications caused by IOC.

Conclusions: Intraoperative cholangiography, performed either routinely or selectively, represents an important tool in diagnosing unsuspected CBD stones during laparoscopic cholecystectomy. Criteria for selective IOC may significantly reduce the number of useless cholangiograms and are to be considered in daily practice. The main predictive factors used for selective intraoperative cholangiography in our study were: history of jaundice, elevated values of ALP, GGTP, SGO, SGP, and CBD diameter.

Key words: intraoperative cholangiography, laparoscopic cholecystectomy