

ANALYSIS OF RISK FACTORS THAT INDICATE CONVERSION OF LAPAROSCOPIC CHOLECYSTECTOMY TO OPEN SURGERY

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Laparoscopic cholecystectomy (LC) has become the "gold standard" in the surgical treatment of gallbladder disease. However, in some cases LC needs conversion to open cholecystectomy (OC). Preoperative assessment that should determine in which patient conversion should be performed as well as identification of the risk factors for conversion are relatively difficult and imprecise.

The aim of this study was to identify the risk factors for conversion of LC to OC.

We performed the retrospective analysis of 65 patients, of both genders, with gallbladder disease, operated in the period from 01/01/2007 to 06/ 2013, in whom conversion of LC to OC was performed. A total of 1292 laparoscopic cholecystectomies (LCs) was done in this period. The authors analyzed: total conversion rate; the conversion rate according to patient characteristics (age, gender, body mass index (BMI)); local pathological condition (acute cholecystitis, chronic complicated cholecystitis, simple calculosis or gallbladder polyposis); surgeon-related parameters (number of performed LCs and total surgical experience).

Total conversion rate (conversion of LC to OC) was 5,03%. Higher conversion rate was registered in the female patients (53.84%), but there were no statistically significant differences. The highest conversion rate was registered in the groups of patients in the 6th and 7th decade ($p < 0.05$). Conversion rate was higher in patients with BMI > 30 (6.56%), compared with those with lower BMI, but there was no statistical significance. Patients operated for acute cholecystitis had statistically significantly higher conversion rate (26.95 %), compared with those with the diagnosis of chronic simple cholecystitis (1.16 %), complicated chronic cholecystitis (8.46%), benign gallbladder polyposis (3.5%), ($p < 0.05$). Surgeons with a lower number of performed LCs (25-50) had higher conversion rate (12.67%), compared with experienced surgeons that performed over 200 LCs (1.4%) ($p < 0.05$).

Conversions are statistically significantly more present in older patients during surgery, in patients with the diagnosis of acute or complex chronic cholecystitis, and in those operated by inexperienced surgeons. Gender, high BMI, anatomical anomalies and variations, previous laparotomy or technical problems were not statistically significant conversion factors. *Acta Medica Medianae* 2016;55(3):13-20.

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