

## 60. RISK FACTORS IN LAPAROSCOPIC CHOLECYSTECTOMY

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**Introduction**. Laparoscopic cholecystectomy (LC) represents the golden standard in the treatment of gallstone disease, including the patients with acute cholecystitis (AC). However, there may be difficult intraoperative situations when performing LC may be dangerous, in which conversion to open surgery is required. It has been established that 2-15% of LC are converted for various reasons, and conversion cases lead to a higher rate of postoperative complications, increased mortality, prolongation of hospital terms, etc.

**Aim of study.** To study the incidence of LC conversion to open surgery with the analysis of preoperative risk factors.

Methods and materials. The LC results were studied in 114 patients with AC treated in the surgery clinic of Municipal Hospital "Sfânta Treime" during 2020-2021 years. The patients were stratified into 2 groups: I- control group (LC without conversion) and II- study group (LC with conversion). The results were analysed according to age, sex, preoperative clinical and paraclinical examinations, including the neutrophil / lymphocyte ratio as a biological marker of inflammation. The severity of LC was determined according to the Nassar intraoperative difficulty scale.

**Results**. From the 114 patients with AC in whom LC was initiated, the intervention was performed in 103 cases; hence the conversion rate was 7.8%. In the conversion group we mentioned the predominance of men (66.7%) with a male / female ratio - 6/3, while in the control group women predominated - (n = 64, or 62.1%) cases. In group II we attested a higher average age, compared to group I. The patients of group I attested intraoperatively grade I-II of severity according to Nassar scale, while in the conversion group predominated grade III-IV of severity. The causes of conversion were: inflammatory vesicular and hepatoduodenal ligament plastron (n = 4), laparoscopic uncontrollable intraoperative haemorrhage (n = 3), gangrenous AC with perivesicular abscess (n = 1), inability to identify the cystic pedicle with the involvement of the duodenum in the inflammatory process (n = 1). The neutrophil / lymphocyte ratio in group I averaged 2.5, while in group II it significantly exceeded this value, averaging 3.9.

**Conclusion**. Conversion to open cholecystectomy represents a rational step in the treatment of complicated AC. The intraoperative findings are the main criteria in the surgeon's decision to convert from LC to an open procedure. Predictive factors of conversion in our study were male sex, higher age. The neutrophil / lymphocyte ratio was significantly higher in patients with severe AC and hypothetically may serve as a preoperative predictive risk factor for conversion in these patients.