

## **Comparison of the outcomes of the first port site in patients undergoing laparoscopic cholecystectomy using open and closed methods.**

**Background:** Use of laparoscopic device for cholecystectomy reduces the need for hospitalization and associated costs, and has many benefits. Laparoscopic cholecystectomy can be performed using open and closed methods (with the help of a Veress needle).

**Objective:** Comparison of the outcome of the initial port site in patients undergoing laparoscopic cholecystectomy using open and closed methods.

**Materials and methods:** The present study was a semi-experimental study. The study population included patients who underwent cholecystectomy surgery in Fatemi and Imam Reza hospitals in Ardabil during the year 2022. In this study, based on patients' records, 120 individuals who had undergone laparoscopic surgery with open port insertion method and 120 individuals who had undergone laparoscopic surgery with closed port insertion method (using Veress needle) were examined. The necessary information for the study was collected through a checklist and from the information recorded in patients' records. The collected data were analyzed using SPSS software and statistical tests including t-test, chi-square test, one-way analysis of variance, and linear regression.

**Results:** The most prevalent underlying disease in the participants of the present study was diabetes (30%). The incidence of infection (0.8%), severity of pain, duration of pain, and hernia (1.6%) in the group of patients undergoing laparoscopic cholecystectomy with the open technique for the first port insertion was significantly higher than the group of patients undergoing laparoscopic cholecystectomy with the closed technique and needle-assisted first port insertion ( $p < 0.05$ )

**Conclusion:** This study showed that in terms of postoperative complications, laparoscopic cholecystectomy for the insertion of the first port using the closed technique is better than laparoscopic cholecystectomy for the insertion of the first port using the open technique.

**Key words:** Cholecystectomy bag, primary port, hernia.