

## Evaluation of Surgical Site Infection in Bile Spillage Cases Compared to Non Bile Spillage Cases Following Laparoscopic Cholecystectomy

**Authors :** Ishwor Paudel, Pratima Gautam, Sandeep Bhattarai

**Abstract :** Bile spillage occurs frequently during laparoscopic cholecystectomy yet its impact on postoperative outcomes remains unknown. It might not be as innocuous as some surgeons tend to believe and in fact, might be associated with post-operative surgical site infections (SSI). It often leads to patient dissatisfaction, emergency department visits, with subsequent readmission and additional procedures. While some authors found no increase in SSI following bile spillage (BS) compared to non-bile spillage cases, others found bile spillage to be associated with SSI. Therefore we sought to examine whether bile spillage is indeed associated with an increased risk of postoperative wound infections after laparoscopic cholecystectomy. I hypothesize that patients who experience BS during operation, have an increased risk of SSI compared to those who do not. This is a prospective observational study conducted in the Department of Surgery, Patan Hospital over a period of one year. Patients undergoing Laparoscopic cholecystectomy were included and bile spillage, if happened was noted. All cases were followed up for 30 days and SSI was diagnosed as per CDC-defined criteria. Fisher's test was applied to compare SSI in bile spillage versus non-bile spillage cases. A total of 112 patients were included in the final analysis. Bile spillage occurred in 20 cases and was absent in the rest i.e.92 cases. Among bile spillage cases, SSI was found in 4 cases (20%), whereas in nonbile spillage cases, SSI was found in 8 cases (8.7%). However, it was statistically not significant ( $p\text{-value}>0.05$ ). Eleven (92%) cases were superficial SSI and one was an organ-space infection. No mortality or 30-day readmission. Spillage of Gallbladder content does not lead to an increase in SSIs. However as the rate of SSI is still higher, Surgeons should be careful to avoid iatrogenic gallbladder perforation and in case of bile spillage thorough peritoneal irrigation with normal saline should be done.

**Keywords :** organ space infection, Laparoscopic cholecystectomy, biliary spillage, surgical site infection

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