

Bail Out Strategies For Difficult Laparoscopic Cholecystectomy- Experience Of 3726 Cases From A Tertiary Care Centre



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Introduction

- ❑ Bile Duct Injury- 0.2 – 1.5%¹
- ❑ Lasting Morbidity, Increased Cost, Quality of Life, Mortality
- ❑ Critical View of Safety- Prevents Bile Duct Injury
- ❑ Bail out Strategies

Material and Methods

- ❑ Retrospective analysis of prospectively maintained data
- ❑ Study Period- January 2004 - December 2019
- ❑ Intra operative difficulty categorized as-
 - ✧ Difficulty in initial access
 - ✧ Dense adhesions and Visceral Fistula
 - ✧ Difficult calot's triangle
 - ✧ Difficulty in Gall Bladder dissection off the liver

Various Bail Out Strategies

- ❑ Additional ports- 5mm port inserted in left hypochondrium to retract over hanging liver lobe or bowel loop and dissection
- ❑ Remnant Gall Bladder Cuff- In dense adhesions with visceral fistula, gall bladder opened at fundus, gall bladder wall divided and remnant gall bladder cuff left adhered to viscera (colon/ duodenum)

- ❑ Near Total Cholecystectomy- in frozen calot's, gall bladder opened at Hartmann's, cystic duct opening into gall bladder identified, gall bladder excised and stump transfixed with Polyglactin 910 leaving 1-2mm gall bladder cuff
- ❑ Up gradation of scope- routinely 10 mm 0 degree scope was used. Up graded to 10 mm 30 degree in difficult dissection

Results

Total Patients	n 649
Mean Age	45.3
Males/ Females	199/ 450
Significant Past History	555 (85.5%)
- Acute Cholecystitis	217 (33.43%)
- Pancreatitis	99 (15.25%)
- Post ERCP	239 (36.82%)

Intra Op Findings	n 649
Palmer Point for initial access	88 (13.55%)
Dense Adhesions	516 (79.5%)
Frozen Calot's Triangle	354 (54.4%)
Visceral Fistula	91 (14%)
Mean Operative Time	82 minutes

Bail Out Strategies

n 649

Additional Port Insertion	138 (21.26%)
Remnant Gall Bladder Cuff	27 (4.16%)
Near Total Cholecystectomy	232 (35.7%)
Upgradation of scope	341 (52.54%)

Conclusion

- ❑ Bile Duct Injury and other complications- preventable
- ❑ Careful and meticulous dissection
- ❑ Critical View of Safety, Time Out, Second Opinion, Bail Out Strategy- indispensable for safe cholecystectomy

References

1. *Pucher PH, Brunt LM, Davies N, et al. Outcome trends and safety measures after 30 years of laparoscopic cholecystectomy: a systematic review and pooled data analysis. Surg Endosc. 2018