



## Letter to the Editor

## Do we need to predict the difficulties during Laparoscopic Cholecystectomy?



Dear Editor,

Laparoscopic Cholecystectomy (LC) is one of the most commonly performed laparoscopic surgical procedures worldwide [1]. Since its introduction in the late 1980s, predicting conversion has fascinated many surgeons and a number of articles have been published to facilitate prediction of conversion. Predictive factors described in earlier literature, such as previous surgery or obesity are becoming less significant or relevant in current clinical practice.

Interestingly, predicting difficulties in any other laparoscopic operations have not been discussed, at least not as extensively as for LC. There is very little literature in predicting difficulties during laparoscopic appendicectomy, or indeed its risk of conversion [2].

The 2 questions we ask are, why do we want to “predict difficulties” in LC only and not for other operations, and do we really use this prediction in practice?

In a LC, there has always been an issue regarding protecting the common bile duct (CBD) from injury. In the early years of LC, there was a rise in the incidence of bile duct injuries due to its operative learning curve [3]. Surgeons began to look at predictive factors aiming to prevent CBD injury by conversion to an open procedure.

The indications for LC are wide ranging from biliary colic to gallstone pancreatitis. Furthermore, the timing of LC varies from elective, delayed to emergency settings. This leads to varying degrees of difficulties during LC not encountered in other laparoscopic operations.

Systems such as those proposed by Surgrue M et al. [4] in predicting the operative difficulty of LC have been devised to aid operative planning and possibly for subsequent reduction in the incidence of bile duct injury (BDI). Use of these systems is sparsely seen in clinical practice and their value in reduction of bile duct injuries is debatable. Possible reasons for minimal use of scoring systems for predicting difficulties may be logistic difficulties in implementation or the complexity of scoring systems with possible low positive predictive values [5].

Further work on predictive factors is not likely to be useful unless “real value” of prediction in clinical practice is identified and implemented through national or international guidelines.

## Provenance and peer review

Not Commissioned, internally reviewed.

## Ethical approval

Nil applicable.

## Sources of funding

Nil applicable.

## Author contribution

RSD Originality of Manuscript, Literature search, Overseer of paper.  
IM Literature search, review of manuscript.

## Conflicts of interest

There are no conflicts of interest.

## Trial registry number

Nil applicable.

## Unique identifying number (UIN)

Nil applicable.

## Guarantor

Both RSD and IM accept full responsibility for the work and/or the conduct of the study, had access to the data, and controlled the decision to publish.

## References

- [1] F. Bray, T. Balcaen, E. Baro, A. Gandon, G. Ficheur, E. Chazard, Increased incidence of cholecystectomy related to gallbladder disease in France: analysis of 807,307 cholecystectomy procedures over a period of seven years, *J. Vis. Surg.* (2018 Dec 17) S1878-7886(18)30176-0.
- [2] K.N. Johnson, M. Linnaus, D.M. Notrica, Conversion from laparoscopic to open appendectomy: decreased risk at dedicated children's hospitals, *Pediatr. Surg. Int.* 34 (8) (2018 Aug) 873–877.
- [3] The Southern Surgeons Club, A prospective analysis of 1518 laparoscopic cholecystectomies, *N. Engl. J. Med.* 324 (16) (1991 Apr 18) 1073–1078.
- [4] M. Sugrue, S.M. Sahebally, L. Ansaloni, M.D. Zielinski, Grading operative findings at laparoscopic cholecystectomy- A new scoring system, *World J. Emerg. Surg.* 10 (2015) 1.
- [5] P.H. Pucher, L.M. Brunt, N. Davies, A. Linsk, A. Munshi, H.A. Rodriguez, A. Fingerhut, R.D. Fanelli, H. Asbun, R. Aggarwal/SAGES Safe Cholecystectomy Task Force, Outcome trends and safety measures after 30 years of laparoscopic cholecystectomy: a systematic review and pooled data analysis, *Surg. Endosc.* 32 (5) (2018 May) 2175–2183.

Ravindra S. Date, Ishaan Maitra\*

Lancashire Teaching Hospitals NHS Foundation Trust Preston, PR2 9HT,  
UK

E-mail address: [ishaan.maitra@lthtr.nhs.uk](mailto:ishaan.maitra@lthtr.nhs.uk) (I. Maitra).