



BAISHIDENG PUBLISHING GROUP INC

8226 Regency Drive, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242 Fax: +1-925-223-8243

E-mail: bpgoffice@wjgnet.com <http://www.wjgnet.com>

Name of journal: *World Journal of Gastrointestinal Surgery*

ESPS Manuscript NO: 18988

Manuscript Type: MINIREVIEWS

Answering reviewers

The paper gives a comprehensive overview of the recent development of minimally invasive techniques for cholecystectomy. The new techniques are compared to conventional laparoscopic cholecystectomy as golden standard. It would be interesting to read more about the potential cost-benefit from these techniques.

We thank the reviewer for his comments. Data is scarce regarding cost-benefit related to the use of these techniques. Mention to cost-effectiveness related to single-incision laparoscopic cholecystectomy has been added in the manuscript.

The patients usually offered these approaches are mostly those who may perceive relatively less benefit from the cholecystectomy, i.e. patients without acute cholecystitis, common bile duct stones or high co-morbidity. The authors should comment on the fact that those who have most to gain from a cholecystectomy (patients with cholecystitis or obstructive jaundice) are very rarely offered any of the newer techniques.

We agree with the reviewer's comment. However, as these minimally-invasive approaches are new and technically demanding, only selected patients are currently included in reported series. Outcomes in patients with complicated cholecystolithiasis are still unknown.

How are the indications for the procedure affected when patients selected for the intervention are decided by the striving to perform the procedure with new technically advanced approaches rather than identifying patients who may benefit in terms of a reduction of symptoms or morbidity from the gallstones?

Selection criteria are not clearly defined in the current literature, these approaches being proposed only to selected patients. In the future, it is likely that patients with multiple comorbidities may benefit the most from these minimally invasive techniques, but their development is still at its early stage.

Although laparoscopic cholecystectomy is nowadays considered golden standard, cholecystectomy through minilaparotomy should be mentioned as an alternative. In fact, there are some randomised controlled trials comparing laparoscopic cholecystectomy with cholecystectomy with some of the outcome measures mentioned in the paper (e.g. Harju et al, Sur Endosc, 2013, Nilsson E, Int J Qual Health Care. 2004) that did not show great differences between the groups.

We agree with the reviewer's comment. Nevertheless, as this review endeavors to analyse current literature regarding new minimally-invasive techniques for cholecystectomy, we decided to focus on laparoscopic approaches and excluded minilaparotomy.