

Commentary on “Meta-analysis of Prospective Randomized Studies Comparing Single-Incision Laparoscopic Cholecystectomy (SILC) and Conventional Multiport Laparoscopic Cholecystectomy (CMLC)” by Pisanu A, Reccia I, Porceddu G, et al. (*J Gastrointest Surg* 2012; 16:1790–1801)

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Received: 11 February 2013 / Accepted: 10 June 2013 / Published online: 20 June 2013
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In your meta-analysis, you concluded that single-incision laparoscopic cholecystectomy (SILC) is a safe procedure compared to conventional multiport laparoscopic cholecystectomy (CMLC).¹

You have included 12 randomized studies in your analysis, all of which investigate specific primary and secondary endpoints. Of the 12 studies, only Phillips et al.² have designed their study to investigate the safety of SILC as the primary endpoint, and they find no statistically significant differences in total adverse events, albeit total wound complication rate is significantly higher after SILC.

Given the relative rarity of the potentially more severe adverse events, e.g., bile duct injuries and incisional hernias, the remaining 11 studies are too small to evaluate safety with a significance level of 95 %. The low absolute number of bile duct injuries and incisional hernias reported in the study by Phillips et al. also call for larger study populations, as they state.

You find an overall higher morbidity rate in the SILC group (OR 1.16), although this does not reach statistical significance. I find it very likely that the insignificantly increased morbidity rate you find is biased towards a potential type II error because most of your included studies (11/12) are too small to evaluate the safety of SILC.

I do not believe that the (possibly) reduced financial costs and better cosmesis after SILC justify an increased risk of

serious complications, a risk that has still to be determined from larger population-based randomized trials.

I very much agree with your statement that results from previous randomized trials could lead to a false sense of security regarding the safety of SILC since centers specialized in minimally invasive techniques provide nadir incidences of bile duct injuries. Meticulous simulator training in SILC could prove to be a good investment in order to overcome an inevitable steep learning curve with associated high morbidity if SILC is dispersed throughout the general surgical community.

In conclusion, I find that SILC has yet to be proven as a safe alternative to CMLC, which is contradictory to your conclusion.

Conflict of interest The author declares no potential conflicts of interest and no financial ties to disclose.

References

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