LETTER TO THE EDITOR

Single Incision Cholecystectomy: A Word of Caution on Surgical Trends

To the Editor:

We read with interest the extensive literature review by Phillips et al1 about more than 2600 single incision laparoscopic (SIL) cholecystectomies. Still, large and sufficiently powered randomized controlled trials comparing conventional laparoscopic and SIL cholecystectomy are lacking (completion of the European MUSIC trial is awaited for the end of 2012). However, an emerging body of literature comparing those 2 procedures is available. In this review, the authors identified a reported 0.72% bile duct injury rate in the SIL group. Given the fact that most of the included patients enrolled into the SIL group were nonacute patients presenting with symptomatic gallstone disease and mostly favorable anatomy (non-obese, absence of inflammation, no history of pancreatitis or upper abdominal surgery), these numbers are almost twice as high as the published 0.4% to 0.5% biliary injury rates currently reported for all laparoscopic cholecystectomy. In our opinion, these numbers reflect 2 relevant problems with the pursuit of surgical “fashions,” especially when driven with considerable force from the industry. First, only 8 of 45 analyzed studies reported on more than 100 cases, meaning most of the reported data were collected from right in the middle of the learning curve. SIL was widely introduced into the surgical community at a stage where neither the required instruments nor any structured concepts for acquiring SIL-specific skills were available. Given the universal consensus that complex surgical techniques should be reached under structured conditions with bench-side training and then proper proctoring of the procedure itself in real-life scenarios (ie, in the operation room), in probably any other scenario, the surgical community would have forcefully rejected an “everybody can/should do” approach to such an operation with the potential for severe complications. This was further aggravated by the initial lack of proper surgical instruments, leading to all kinds of “experiments” with conventional laparoscopic instruments or self-tailored port systems at the very beginning of the learning curve. Although nothing is wrong with an individual surgical technique, in many cases, the mainstay of laparoscopic dissection of the triangle of Calot—the so-called critical view—was happily omitted. Also, the pressure was so high to perform a “no-scar” procedure that many surgeons would have rather struggled through a difficult and unclear single-port dissection of the gallbladder instead of simply introducing an additional port (which was from the beginning marked as a “failure” of SIL surgery). However, what patient would have complained about having 2 instead of 4 trocar incisions with the same level of safety during the procedure?

Second, because of the design of the first commercial SIL ports with only 3 openings, surgeons used to a 4-port cholecystectomy were forced to do a 3-port cholecystectomy. Therefore, inevitably, the anatomically highly variable biliary system was at an increased risk. However, it has to be stated that by using a 4-port SIL port with the use of a bended clamp to retract the gallbladder fundus cephalad as in 4-port cholecystectomy, one straight dissecting hook and an articulated grasper for the infundibulum, any SIL cholecystectomy can be performed with exactly the same steps and nodal points as a 4-port cholecystectomy. Alternatively—however, with some cases of bad anatomical exposure and therefore less advisable—a retention suture to the gallbladder can replace the clamp at the fundus. In both scenarios, the surgeon has 2 instruments available to achieve adequate dissection and visualization of Calot’s triangle.

Keeping this in mind, it seems time to go back to evidence-based medicine and proceed with an exciting new technique in the same prudent way as everyone would expect to be treated when being the patient himself.

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