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The authors declare that there is no conflict of interest.

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Preoperative suspicion of difficult laparoscopic cholecystectomy Sospecha preoperatoria de colecistectomía laparoscópica difícil

Dear Editor:

Laparoscopic cholecystectomy is the first therapeutic option in gallstone disease. Acute cholecystitis is a risk factor for complication in laparoscopic cholecystectomy and a significantly associated predictive factor of conversion to open cholecystectomy[1], which is a safer treatment alternative in those patients.

With great interest, I reviewed the retrospective case-control study by Morales-Maza et al.[2] on the controversial subject of laparoscopic cholecystectomy conversion to open surgery that was conducted at a tertiary care hospital. The study proposed a risk factor analysis based on clinical, laboratory, and ultrasound parameters, concluding that patients above 50 years of age, male sex, and ultrasound findings of gallbladder wall thickening and the presence of pericholecystic fluid are factors for conversion to open cholecystectomy, with 84% sensitivity of the risk factor summation pathway.

In 2018, Al Masri et al.[3] carried out a retrospective study in which they concluded that the predictive variables for conversion were advanced age, male sex, and significant comorbidities, such as chronic obstructive or restrictive lung disease and anemia, with hemoglobin levels below 9 g/dl, as well as a history of previous laparotomies, resulting in a conversion rate of 1.03%. The most frequent intraoperative causes for conversion were the perception of difficult anatomy or inadequate visualization of structures due to the presence of severe adhesions or a significant inflammatory process. The patients that required conversion had longer periods of hospitalization.

In 2019, an international, multicenter, prospective study was conducted to evaluate an intraoperative scoring system to achieve a surgical classification to predict the indication for conversion of elective or emergency laparoscopic cholecystectomy to the open procedure. The scoring of cholecystitis severity was based on 4 components: the surgical appearance of the gallbladder (adhesions covering more than 50% of the gallbladder or less than 50%); distension/contraction (a distended or contracted gallbladder, impossibility to grasp the gallbladder without decompression, a stone larger than 1 cm impacted in a Hartmann pouch); ease of access (body mass index above 30 or limitation due to adhesions from previous surgeries); and the presence of sepsis in the peritoneal cavity (biliary peritonitis or purulent fluid), as well as the presence of a cholecystoenteric fistula. The total score was 10 points (G10). If the G10 system score was less than 2 points, the gallbladder surgery was classified as easy, a score of 2–4 points was classified as moderate, 5–7 points as difficult, and 8–10 points as extreme. Twenty-two percent of the patients were found to have gallbladder surgeries that were considered difficult or extreme. The surgeries were converted in 14% of the patients, but 33% of those conversions were in patients with G10 scores ≥ 5[4].

☆ Sánchez-LuqueServicio CB. Sospecha preoperatoria de colecistectomía laparoscópica difícil. Rev Gastroenterol Méx. 2022;87:400–401.

Developing predictive risk factor models that enable the identification of patients at a higher risk for conversion of laparoscopic cholecystectomy to open surgery has been very difficult. Risk factors must be correlated with operative findings that can lead to the complex decision of converting a cholecystectomy.

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Response to Sánchez-Luque regarding ''Preoperative suspicion of difficult laparoscopic cholecystectomy''

Respuesta a C.B. Sánchez-Luque «Sospecha preoperatoria de colecistectomía laparoscópica difícil»

Dear Editors,

We read with great interest the letter written by C.B. Sánchez-Luque, referring to our article recently published in the *Revista de Gastroenterología de México*, volume 86.[1]

As the author correctly asserts,[2] acute cholecystitis is recognized in different observational studies as a predictive factor for complications during laparoscopic cholecystectomy, for a ''challenging'' surgery, and for the conversion to open surgery.[3]

Sánchez-Luque also states that open cholecystectomy could be a safer treatment alternative in those cases. That affirmation is a controversial topic that has been discussed at current international forums, given that training strategies in general surgery residency programs have significantly changed over the years. With the advent of minimally invasive surgery, presently considered the gold standard, the number of open cholecystectomies that a general surgery resident carries out in an academic program is limited, and in some cases, does not reach even one-tenth of the total number of laparoscopic procedures performed by the time of graduation.[4,5] Moreover, with the introduction of new technologies, such as robotic surgery, we have found reports on training programs, in which residents graduate having performed more robotic cholecystectomies than open procedures.[6] Even though this may not represent the current situation experienced in Latin American countries, and may speak more of a ''first world'' problem, it is only a matter of time before the new generations of Mexican surgeons will find themselves in the same situation, as hospital infrastructure continues to develop.

The fact that the new generations of surgeons develop more advanced skills in minimally invasive surgery during their training has resulted in the questioning of whether the most adequate management, when confronting a difficult cholecystectomy, is necessarily conversion to open surgery, given that at present, the performance of a bailout procedure, such as subtotal fenestrating or reconstituting cholecystectomy, has been shown to maintain the advantages of minimally invasive surgery, with similar results in terms of complication rates, as well as better long-term quality of life, compared with conversion to open surgery, in cases of cholecystitis that are technically difficult.[7,8] Nevertheless, the currently available results come from retrospective studies, opening a door of opportunity to conduct randomized prospective studies that will enable the advantages of one technique over the other to be defined.[9]

Our group is presently working on validating the described risk factors for conversion,[1] in a more contemporaneous cohort, attempting to identify whether those same factors can predict the need to opt for a bailout procedure. It would also be interesting to evaluate whether the

☆ Rodríguez-Quintero JH, Aguilar-Frasco JL. Respuesta a C.B. Sánchez-Luque «Sospecha preoperatoria de colecistectomía laparoscópica difícil». Rev Gastroenterol Méx. 2022;87:401–402.