

Searching the best approach for third-generation cholecystectomy

To the Editor:

We carefully read the study from Pai et al¹ that demonstrates the technical feasibility of transcolonic cholecystectomy. Recently, we also investigated an endoscopic approach to perform scarless cholecystectomy through a transgastric and transvesical combined approach.² In our study, we also confirmed that an abdominal inferior port provides an en face orientation to the upper abdominal organs and allows better visualization and the ability to work straightforwardly. However, for these purposes, we used a transvesical instead of a transcolonic port. In fact, the transvesical access to the peritoneal cavity was feasible, easy to install, and safe in a survival porcine model study. Moreover, it should be emphasized that we did not experience any complications, such as adhesions or peritonitis, even when we left the vesicotomy point unclosed.³

However, previous studies that tried to perform cholecystectomy by natural orifice transluminal endoscopic surgery (NOTES) performed it by using a single port, either transgastric or transcolonic.^{1,4,5} These approaches share common limitations, such as difficulties in performing effective retraction and dissection with triangulation. In fact, we should not forget that cholecystectomy is a moderately complex procedure, usually needing 4 to 5 trocars in the laparoscopic technique. To deal with these limitations, we combined 2 diametrically opposed ports (transgastric and transvesical), which was particularly useful.²

Although these studies clearly reinforce the idea that third-generation cholecystectomy (by NOTES) might be feasible in human beings in the near future, further experimental studies are needed to identify the most appropriate approach.

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Response:

We appreciate the comments of the Correia-Pinto team regarding our article on transcolonic NOTES cholecystectomy and look forward to their upcoming publication involving a unique transvesical approach. Their work appears to confirm the advantages of working in an enface position as provided by an inferior peritoneal access site. Additionally, they emphasize the benefits of diametrically opposed ports.

We too have dabbled with simultaneous ports; however, we utilized gastric and colonic access sites (referred to as the "roisserie method" by some in our laboratory). The extra port may be advantageous in providing traction and occasionally may present a better angle for dissection; however, we would hope not to rely on this for most procedures in the future. If an additional port is essential to complete a given procedure, it may be more suitable to use micro-trochars rather than a second site of luminal breach, until other options are available. Also, just as different