Transanal total mesorectal excision into the future

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Last November in AIS Channel, we have celebrated the 10th anniversary of the first transanal total mesorectal excision (taTME) procedure (Figure 1). In that Thursday afternoon, we began by talking about the past, the road that led us to the first procedure, the important parts played by Patricia Sylla (1) and Richard Heald (2), and the present reality that we are facing in current days. During 7 and a half hours, in a record breaking eco-friendly event, fully created and fully transmitted on-line, with over 20,000 viewers, we discussed every single aspect of taTME.

Talking about the past is much easier than talking about the future and where we are heading to. Nevertheless, my role today is to do so.

I’m not going to try and see what the future beholds, that, I leave to crystal balls and magicians, but I’m going to give you my vision on what are the crucial steps to take taTME into the future: solid evidence and adequate proctoring.

Last year we had some important publications that have shaken the taTME-pro community. The Norwegian moratorium (3) took us by surprise, and has shown us that starting the taTME program could have serious implications. It led to disbelief and discredit of a procedure that, until then, was thought to be effective and, at least, as oncologically safe as the other types of TME (open, laparoscopic, robotic).

It was not the first time we have witnessed something like it. The same thing happened in the 1990s with the fear of port-site metastases after oncologic resections (4) and the negative impact it had on laparoscopy. Later, it was proven that the technical aspects of the procedure were crucial in avoiding such complications and that they were an independent risk factor (5). As seen in that time, the scientific community promptly responded, showing their good results and questioning the data presented (6,7).

Just this January, a multicenter cohort study with 767 patients has proven that in high volume centers, taTME is associated with good locoregional control and that the technique, when adequately performed, does not imply an inherent oncological risk (8).

Although there is piling evidence in favor of taTME, I believe that only the results of the COLOR III trial (9) will close all the debates. This multicenter RCT is key in answering all the questions and clearing all the doubts regarding taTME’s role and, presumably, superiority in comparison with LapTME. The sooner we reach the numbers, the sooner we will have the results, so I ask all of you performing this technique, to submit your patients.

After 10 years, I have no doubt this procedure is the best way to treat mid and low rectal cancer and my hope is that it becomes consensual.

The other important issue that will influence the future of taTME is the way we train our surgeons to perform it—the proctoring. Ideally, a surgeon must have experience in TAMIS procedures and Laparoscopic colectomies before starting his training in taTME.

Published data shows that the better oncological results and the less contradictory conclusions come from centers of high volume, and, consequently, high expertise.

So, if we want to take this technique into the future, we must define what the ideal proctoring strategy is and how to evaluate the results of our trainees.

In our Hospital, since 2012, we have received more than 600 surgeons in the taTME hands-on course. Many of them currently perform the technique and are well known for their contributions, but others never came to implement it.

Critics say taTME is not for every surgeon, it has a very steep learning curve, it needs some very specific and expensive material and when performed with two teams, a bigger operating room and a higher number of personnel.
involved (Figure 2). I agree with the learning curve and the importance of overcoming difficulties before starting a program, but the only way to do it is to have an effective training.

As for everything, a way of someone learning something, may differ from the one beside him, and learning and training must be individualized. Our experience in online courses with our KHIRUS platform, with hands-on courses and, most recently, with telestration, made us re-think our proctorship of taTME. Starting this year, we will embrace a more comprehensive and personalized strategy, hoping to identify the ideal pathway for training surgeons in taTME and assure the continuity of this technique.

In conclusion, when we have the expected evidence on safety and oncologic results and when we master the proctoring pathway, we will lead taTME into the future and establish its role as the standard of care for mid and low rectal cancer.

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