



# taTME for mid-low rectal cancer: myth, hope, or reality?

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Up-to-down total mesorectal excision (TME) is the gold-standard approach to mid-low rectal cancers (1), but it can be technically challenging, especially in obese male patients or in patients with ultralow rectal cancers. In this subset of “difficult patients”, due either to a narrow pelvis or a bulky mesorectum or to the cancer location close to the anal sphincter complex, increased rates of positive circumferential resection margin (CRM) and of incomplete mesorectal excision have been reported (2-4).

In 2010 Lacy reported the first case of laparoscopic down-to-up TME or transanal TME (taTME) (5). This new approach to rectal cancer immediately attracted great interest in the colo-rectal surgical community because of the supposed advantages: better view of the surgical field and increased radicality, especially in low rectal cancer patients. In the first reports of this new approach, the rates of incomplete TME and of positive CRM have been shown to decrease to 3% or less (6-11). These results compare favorably with those of the up-to-down TME series reporting rates of incomplete TME and positive CRM up to 10% and 22%, respectively (2,6,8,10,12-14).

However, these supposed oncological benefits of the new down-to-up approach have been challenged in the surgical community due to the small cohorts of patients analysed and to the lack of randomized studies. The COLOR III study, a randomized study comparing taTME versus up-to-down TME in mid-low rectal cancers, has recently started to enrol patients and, we all hope, will be able to answer many of the open issues. In the meanwhile, the International taTME registry has already collected more than 2,000 patients from all over the world and it's beginning to confirm the previous reports about the oncological advantages of this new approach. Also, the Italian taTME registry ([www.tatme.net](http://www.tatme.net)) has this purpose.

Of course, there is also the other side of the coin: higher

rates of genitor-urinary complications (i.e., urethral injury), a learning curve to define and, last but not least, the need/longing of specific technology for this new approach.

In conclusion, taTME is myth, hope, or reality? I believe that the transanal approach is no more a myth but It's not yet a reality. Despite the quite good oncological results reported, there are many open issues. First of all, the indications: should all the patients with mid-low rectal cancers be approached transanally? Probably no, the best patients to undergo taTME are the so-called “difficult” patients. However, these patients are also the most difficult to be approached transanally. Second, we do not know anything about the anal functional results. I do not expect to be worse than those of TEM or up-to-down TME but we are waiting for the International taTME registry's results. Third, we need to give colo-rectal surgeons an adequate training in the transanal approach with cadaver-lab courses and local proctoring.

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