

Transanal Total Mesorectal Excision (TaTME) for the rectal cancer: good and safe alternative for obese patients.

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**Background:** Since the introduction of the TME (Total Mesorectal Excision) by Heald RJ in 1988 it has become an accepted and paramount approach to treat a rectal cancer. Utilization of laparoscopy, in the last two decades, has gradually been recognized as a golden standard, given the reduction in overall complications, length of stay and in the same time a similar oncological outcome.

Unfortunately, an anastomotic leak is still a valid and vast issue regarding the low and ultra-low colorectal resections. There are known, well-established risk factors such as male gender, narrow pelvis, obesity, diabetes, duration of surgery and field visualization. To treat the low rectal tumors in those patients a novel technic, presented by A. Lacy in 2010, TaTME (Transanal Total Mesorectal Excision) was successfully introduced, which in comparison to open/laparoscopic low anterior resection seems to have some advantages.

**Material and methods:** The aim of this study was to compare an overall complication rate, including the anastomotic leak, in patients with high body mass index (BMI > 25) treated for low rectal cancer between a TaTME and a low anterior resection group. We have also reviewed and compared all complications within the TaTME group based on the patients' BMI. A prospective study of 35 consecutive TaTME cases were conducted between May 2016 and February 2018 at Lower Silesian Comprehensive Cancer Center in Wrocław (Poland). All patients were treated due to rectal cancer.

**Results:** In our department all 35 TaTME operations were followed by creation of a protective defunctioning loop ileostomy. Median anastomotic height from anorectal junction was  $3.0 \pm 1.6$  cm. We have encountered one anastomosis leakage (2.86%). There were 20 patients (57%) with a BMI at least or over 25. The overall complication rate in this group was 20% (4/20) and it was as follows: anastomotic leak, bowel obstruction, intraabdominal abscesses and one iatrogenic small bowel injury. It was compared to < 25 BMI group with a 20% complication rate (3/15), and it was not statistically significant. Anastomotic leak rate in the >25 BMI group was (5%) and it didn't differ from the open/laparoscopic group statistically.

**Conclusion:** Due to all the difficulties and complications rate after ultra-low anterior resections, especially in the obese, male patients with a narrow pelvis, the TaTME approach seems to be a feasible and safe alternative. As it was shown already in other publications it has good, comparable oncological outcomes and can shorten the time of operation and blood loss. Because of the small study group, we will continue on gathering data for future analysis.

**Key words:** TaTME, rectal cancer, minimal invasive surgery, obesity

**Kategoria:** K4. Chirurgia kolorektalna – nowe metody i techniki operacyjne / Chirurgia minimalnie inwazyjna w nowotworach narządowych / Powikłania w chirurgii minimalnie inwazyjnej / Colorectal surgery – new methods and surgical techniques / Minimally invasive surgery in organ tumors / Complications in minimally invasive surgery