Obstrucción colónica maligna: ¿to stent or not to stent?

Malignant Colonic Obstruction: To Stent or not to Stent?

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- Alberto Arezzo

The fundamental hypotheses driving the growing interest in self-expandable metallic stent (SEMS) is that it could convert an emergency surgery into an elective one, thus reducing preoperative morbidity. Furthermore, restoring bowel function was thought to reduce the need for creating a stoma, which is often definitive rather than temporary and significantly burdens quality of life.

Twenty-five years after the first description of the technique, the debate remains open on the role of SEMS placement for symptomatic malignant colonic obstruction.[1] Fuelling the controversy are the conflicting results from different series and comparative studies. Interestingly, 3 of the 8 RCTs published so far, were stopped prematurely[2; 3; 4] and, curiously, this happened for opposite reasons. Nevertheless, in 2014, the European Society for Gastrointestinal Endoscopy (ESGE) produced tentative guidelines for the use of SEMS in presence of malignant colonic obstruction. While the use of stents for palliation resulted quite obvious at least in presence of severe comorbidity, a role of SEMS placement as a bridge to elective surgery (SBTS) for symptomatic left-sided malignant colonic obstruction was denied.[5] This was a consequence of concerns regarding the effect of colonic stenting on short-term complications, as well as on long-term survival in patients whose disease is potentially curable, due to the possible risk of both local progression of the cancer and metastatic spread.[6; 7] This position seems somehow influenced by the large numbers of the Stent-In-2 study.[3] This was an extraordinary effort once again completed by our Dutch colleagues, who randomized 98 individuals at 25 different centres before the study was put on hold, being anyway the randomized controlled trial with the largest number of individuals included at the time of publication.

In this scenario a new input is given by the publication of the short-term results of the ESCO-study.[8] This is a study conceived in the same years together at the Department of Surgical Sciences of the University of Torino and at the Hospital de la Sta Creu i St Pau in Barcelona. It involved just 5 centres, of which only 3 consistently recruiting, for a total of 144 individuals included. Once again, rather than contributing to clarify the effective role of SEMS in this clinical setting, the results of ESCO-study seem to contradict those of the Stent-in 2 trial in at least what it is the main aim when facing a potentially curable

oncologic disease, that is overall and disease-free survivals. No difference in oncologic outcome was found at a median follow-up of 36 months with almost 80% of the individuals completing follow-up. This is in line with other studies which results had been previously reported, such as Alcantara et al.[3] and Cheung et al.[9] And, in fact, also Sloothaak et al.,[10] in their analysis of the long-term results of the Stent-in-2 trial, reported that stent placement was associated with a higher risk of recurrence, but that the numbers were too small to draw a definitive conclusion. On subgroup analysis, a higher recurrence rate was observed among patients who had experienced a perforation during SEMS positioning.

To date, to address this important question a meta-analysis of only RCTs would avoid the major limitation of meta-analyzing data potentially confounded by a systematic difference in patient characteristics between the two treatment groups. We performed such analysis, and for this reason, we intentionally excluded data originating from case-control and cohort studies.[11] Since 1994, 8 RCTs[2; 8; 9; 12; 13 ; 14] comparing SBTS and ES for symptomatic left-sided malignant colonic obstruction have been published and included only 497 cases. Nevertheless, statistical analysis showed an acceptable level of evidence, as confirmed by risk of bias analysis and heterogeneity tests. The sensitivity analyses showed that no study had an influential effect on RR. Unfortunately, as we did not have access to the individual participant data or the hazard ratios of the single studies, we were unable to compare the global overall-survival and the global progression-free survival curves of the series included in this study.

On the other hand, our meta-analysis demonstrates that the rate of overall complications within 60 days after surgery is significantly reduced in patients undergoing SBTS. This finding represents an absolute novelty, whereas, in the past, a significant difference was obtained only when retrospective uncontrolled studies were included in the analysis.[15] Furthermore, the risk of a temporary or permanent stoma was found to be significantly lower in the SBTS group. In the lack of measurable objective data on quality of life, minimizing the need for colostomy after ES should be considered a significant improvement.

Before any definitive conclusion can be drawn further objective data should be collected. Keeping in mind that the main outcome to be measured is the oncologic one, this seems likely to result comparable in the two groups. Therefore, more data regarding short-term and long-term overall morbidity, rate of temporary and permanent stoma, and quality of life should be acquired and analyzed. Moreover, issues still open, to be addressed, are the eventual importance of a specific bowel preparation after stent placement, and possibly

the correct timing for surgery after stent placement. Possible improvements in patients' management could only improve outcomes as in any other technology application. In the meanwhile, a SBTS strategy seems preferable to ES for left-sided malignant colonic obstruction when sufficient endoscopic expertise is available.

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