Editorial

Is Fluoroscopic Guidance Needed for Palliative Esophageal Stenting?

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Esophageal cancer ranks eighth among cancer worldwide with an overall 1-year survival of 40% and a 5-year survival of 7 to 10%.[1,2] More than 50% patients with esophageal cancer have advanced stage at diagnosis, and many have significant dysphagia, which contribute to weight loss and malnutrition.[3] Adequate palliation of dysphagia optimises nutritional status, improves quality of life, and facilitates early palliative chemotherapy.[4,5]

Self-expanding metal stent (SEMS) plays an important role in the palliation of malignant dysphagia and is recommended in patients with advanced disease.[5,6] However, placement of SEMS may be associated with adverse events like migration, bleeding, and perforation.[5,7] SEMS insertion is traditionally performed under a combination of fluoroscopic and endoscopic guidance and dilatation is done prior to stent insertion whenever needed. However, recently, SEMSs are increasingly being placed under endoscopic guidance, avoiding dilatation whenever possible. Several retrospective case series have reported high technical and clinical successes without increased adverse events with endoscopically guided insertion; although in most centers, a combined radiological and endoscopic approach is still favored.[4,8,9] However, there have been no randomized trials comparing endoscopically and fluoroscopically guided stent insertion.

The European Society of Gastrointestinal Endoscopy (ESGE) recommends placement of partially or fully covered SEMSs for palliative treatment of malignant dysphagia over laser therapy, photodynamic therapy, and esophageal bypass.[10] For patients with longer life expectancy, ESGE recommends brachytherapy as a valid alternative or in addition to stenting in esophageal cancer patients with malignant dysphagia.

In the current issue of *Journal of Digestive Endoscopy,* Balekuduru et al[11] reported a two-institute experience of efficacy and safety of endoscopic metal stenting for esophageal malignancy without fluoroscopy. This is a retrospective study of patients with esophageal malignancy who underwent esophageal stenting over a 3-year period. All patients underwent a thorough clinical examination, upper gastrointestinal (GI) endoscopy, and biopsy to confirm the diagnosis. Contrast-enhanced computed tomography (chest and abdomen) was used to assess the local tumor infiltration and metastasis. The authors excluded patients who were terminally ill with a life expectancy of < 4 weeks. The authors uniformly used partially polyurethane-covered proximal release SEMS in all patients with a diameter of 23/28 mm and length of 3 cm more than the length of the stricture. Prior to placement of SEMS, the controlled radial expansion (CRE) balloon catheter was used to dilate the stricture up to 11 mm to allow the upper GI scope to pass through. In this study, the most common location of the esophageal tumor was in mid esophagus. Following SEMS, the dysphagia severity score among 78 patients was none in 5 (6.4%), mild in 64 (82%), moderate in 9 (11.5%), and severe in 0. The median difference in survival between 78 patients who underwent SEMS was compared with 50 patients who did not undergo SEMS deployment (141 days [range: 41–360 days] vs. 98 days [range: 30–165 days]; $p = 0.01$). At 200 days, follow-up from the diagnosis or from SEMS deployment, 18 (24%) patients who underwent SEMS were alive, while none of the patients without SEMS survived. The complications after dilation were retrosternal pain in 58 patients (74%), respiratory distress in nine patients (11.5%), aspiration pneumonia in two patients (2%), and perforation in one patient who were all managed medically. The relief of dysphagia, the median survival and complications reported are similar to the prior published studies.

However, there are major limitations of this study. The inherent bias of the retrospective design, small number of patients, and the control group being formed by the patients

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who declined SEMS insertion are obvious limitations. All patients underwent dilation up to 11 mm prior to stenting which is risky in the setting of an esophageal malignancy; use of an ultrathin scope (5.9 mm) could have avoided dilation in a significant number of patients. In this study, there was no stent migration which is contrary to the published literature in which the rate of migration varies from 20 to 39%.[12] This decreased rate may be due to partially covered stent rather than fully covered stent, and less number of patient with tumors involving the GE junction

The pretext of placement of SEMS under endoscopic guidance alone is that it may save time and avoid radiation. There are no randomized controlled trials comparing endoscopically and radiologically guided stent insertion. However, a recent retrospective study reported no difference in outcomes between the two approaches. The avoidance of radiation is definitely important but in the context of malignant esophageal obstruction with significantly diminished survival this avoidance may not be clinically relevant. Moreover, the safety of the procedure may be compromised as in endoscopic placement prestenting dilation is needed for the endoscope to pass which increases the risk of perforation.

The U.K. National Esophagogastric Cancer Audit (NOGCA), 2013, did report stent characteristics for 1,464 patients who underwent palliative stenting.[9] In comparison to 2010 data, there was a significant reduction in stents inserted under fluoroscopic guidance alone (41–21%), with a corresponding increase in stents inserted using endoscopy alone (23–34%), or a combined approach (36–45%).[9] The increase in endoscopically guided insertions demonstrate greater recognition of the feasibility and success of this technique.

Conflict of Interest

None declared.

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