Is less really more? Endoscopic mucosal resection versus esophagectomy for submucosal esophageal adenocarcinoma

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Central Message

Endoscopic therapy has a role in the management of esophageal submucosal adenocarcinoma, but only in cases where the biology indicates a low-risk cancer.

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The advent of minimally invasive surgery during the past several decades has challenged and changed the old dictums of surgical practice. It showed us that minimally invasive surgery can be performed with less of an incision, less trauma to tissues and patients, and less recovery time, and truly with more value to the patient. In the same way that laparoscopic surgery challenged open surgery, endoscopic surgery is challenging laparoscopic surgery—small incisions versus no incisions.

In their report in this issue of the *Journal*, Nelson and colleagues¹ examine the value of endoscopic mucosal resection (EMR) for submucosal adenocarcinoma relative to the traditional surgical therapy, esophagectomy. In their retrospective study from a prospective database, Nelson and colleagues¹ found that local recurrence was higher in the EMR group, whereas the rate of distant recurrence was not significantly different. With propensity matching, there was no significant difference, likely as a result of small numbers ($n = 15$ in each arm). In the study of Nelson and colleagues,¹ EMR was less frequently performed on deeper and high-risk lesions. Despite the selection bias, there is valuable information to be garnered. The scoring system proposed by Nelson and colleagues¹ to identify low-risk lesions can help one to decide whether to perform EMR instead of esophagectomy when both options are on the table.

Even as you read this editorial, EMR is quickly being supplanted by endoscopic submucosal dissection. Endoscopic submucosal dissection has the potential to be superior to EMR, in that it allows resection of larger lesions en bloc rather than piecemeal, and it allows the resection of both mucosal and submucosal layers. As such, the potential for complete resection is higher, with potentially lower local recurrence. Although only time and rigorous study will tell whether endoscopic submucosal dissection is superior to EMR for therapeutic intent, there is less doubt with regard to their diagnostic value. The accuracy of identifying

cT1a versus cT1b with endoscopic ultrasound is limited, let alone the distinctions among SM1, SM2 and SM3.^{2,3} As such, there is likely a role for endoscopic resection for the purpose of accurately staging superficial cancers.

Although mechanical limitations can be overcome by advances in surgical technique, patient selection and understanding of biology are the ultimate determinants of oncologic success in this subset of patients with cancer. We and others have shown that submucosal cancers of the esophagus can be characterized as superficial cancers but should not be expected to behave like early cancers.^{4,5} The invasion of the tumor within the deep submucosa (SM3) and lymphovascular invasion are significant risk factors for lymph node metastasis. Given that endoscopic therapy does not address locoregional disease, it should not be considered as the only therapy for the treatment of submucosal cancers unless there are mitigating factors, such as poor patient functional status.

In a modern minimally invasive surgical practice, less is usually more. In the endoscopic treatment of submucosal esophageal cancer, however, less can sometimes just be less.

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