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Does the localization of intrathoracic anastomosis have an impact on the development of anastomotic stricture?

İntratorasik anastomozun yeri anastomoz hattında striktur gelişmesinde etkili midir?

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We read with interest the paper by Eroğlu et al.[1] concerning intrathoracic anastomotic stenosis after an Ivor-Lewis esophagectomy. They presented their experience of anastomotic stenosis in 15 (12.0%) of 125 patients who underwent an Ivor-Lewis esophagectomy utilizing an end-to-end anastomosis stapler technique.

Anastomotic leaks and the use of small-diameter (21 mm and 25 mm) circular staplers are the most common factors that are associated with the development of anastomotic strictures.[2] The authors reported only five (3.8%) anastomotic leaks and found that the anastomotic stenosis was not correlated with this complication. The lower rate of anastomotic leaks was related to the use of an omental flap at the side of the anastomosis, which is a useful technique for preventing anastomotic leaks due to its ability to induce neovascularization in avascular areas.[3] When they evaluated the anastomotic technique of the patients who had intrathoracic anastomotic stenosis, they found that anastomoses were performed with a 25 mm stapler in nine of the patients (13.4%) while a 28 mm stapler was used in the other six (10.3%). Hence, the size of stapler did not appear to have a strong effect on the development of the anastomotic stricture.

They also reported an anastomotic stenosis rate of 25% (13/52) for those patients with a tumor located in the middle third of the esophagus and 2.9% (2/69) for those with a tumor in the distal third of the esophagus/cardia. In addition, they discussed the anastomotic stricture in the upper and middle parts of the esophagus. This is a really important result that should be discussed as terms of the localization of the intrathoracic anastomosis. However, this discussion should focus on either the tumors in middle third of the esophagus and/or the distal third. Do the authors have any data about the localization of the anastomosis and which size of end-to-end anastomosis stapler was used at that localization? Perhaps the natural, narrowed structure of the upper part of esophagus forced the surgeons to use a smaller-diameter stapler (25 mm) when the esophagus could not accommodate the 28 mm anvil. In this case, the terminalized, semi-mechanical side-to-side suture technique, which provides a large-bore anastomosis and results in a reduced risk of stricture formation, might have been a good option when performing the anastomosis at the upper part of the esophagus.[4] This observation could have major clinical significance.

Lastly, in the "Results" section, the authors' findings related to dilatation cures reported a mean dilatation rate of 1.7, and once, twice, three times, and six times dilatations for 10 (66.7%), two (13.3%), two (13.3%) and one (6.7%) patient, respectively. In the abstract, the mean dilatation cure was presented as 1.7 session; however, we thought that the range given as two-six sessions was incorrect and should have been one-six sessions.

In spite of this possible discrepancy, we want to congratulate the authors on their low morbidity rate after performing an Ivor-Lewis esophagectomy for esophageal cancer.

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Author's Reply

We examined the letter related to our article entitled "Intrathoracic anastomotic stenosis after resection in esophageal cancer".

We found anastomotic stenosis in 12% of the patients who underwent an Ivor-Lewis esophagectomy and esophagogastric anastomosis via a stapler. Anastomotic leaks and the use of a small-diameter circular stapler are the most important factors in the development of anastomotic stenosis. Anastomotic leaks occur more frequently in the cervical region, and the mortality rate is lower at this location than for thoracic leaks. In addition, they can lead to stenosis in later periods. There were only five cases of anastomotic leakage in our study, and three of these patients died because of this complication. Hence, we saw no stenosis in our cases due to anastomotic leakage. Furthermore, we did not identify any statistically significant difference regarding the development of anastomotic stricture via the use of a 25 mm or 28 mm stapler. In fact, we actually observed a significant reduction in the rate of this complication. Although no statistical significance was even associated with the 25 mm stapler, its popularity has declined in recent years. We also believe that using circular staplers is not appropriate in cases involving cervical anastomosis and prefer the semi-mechanical side-to-side suture technique for anastomosis in this region.

The rate of anastomotic stenosis was 25% (13/52) for patients with a tumor in the middle third of the esophagus and 2.9% (2/69) those with a tumor in the distal third of the esophagus or cardia. The literature has focused on anastomoses in the cervical and thoracic regions, but we evaluated the middle and distal esophageal anastomosis zones and found that stenosis was more common in the middle. Unfortunately, we could not find any other articles in the literature that focused on this same issue, so comparisons were not possible. In addition, we did not take into account the localization of the anastomosis when choosing the stapler size. Instead, the staplers were selected according to the surgeon's preference and the diameter of esophagus, and both stapler diameters were used at a similar rate in both the middle and distal thirds of the esophagus in our study.

Furthermore, the mean number of sessions for the dilatation cure was 1.7 (range, 1-6).

Thank you for the author's valuable contributions and interest.

On behalf of all co-authors

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