

References

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Reply to the Editor:

Kassem and Jamil¹ describe 2 approaches for addressing systolic anterior motion (SAM) after mitral valve repair (MVRr). In the first approach they describe an artificial chord from a papillary muscle to the anterior annulus on the ventricular side of the anterior leaflet. The chord serves to stop the migration of excess anterior leaflet into the outflow tract.

The second technique involves placing a diagonal artificial chord from the posterior annulus (anchored into the annuloplasty ring) around the A2 segment of the anterior leaflet between the 5 and 7 o'clock positions. Again this presumably restricts migration of the anterior leaflet into the outflow tract.

My aim in addressing postrepair SAM is to provide a relatively quick, safe, and effective option without affecting coaptation depth and hence long-term repair durability. If significant SAM persists after discontinuation of cardiopulmonary bypass, when possible the treatment should be a relatively quick option to minimize the duration of the additional myocardial ischemic time.²

In theory the methods described by Kassem and Jamil¹ intuitively make sense. However, I have a few concerns:

1. Aside from personal experience, the authors do not provide objective evidence that the measure-

ments they advocate for assessing SAM risk are indeed risk factors for SAM.

2. Placement of the papillary muscle to the anterior annulus artificial chord is often difficult and unlikely to be routinely possible. Furthermore, the difficulty in placing this suture may lead to inadvertent crossing of the artificial chord over normal native chordae, hence affecting chord function. The authors explain that in cases when this is not possible, the diagonal artificial chord option should be considered.
3. The diagonal chord is held in place under the anterior leaflet and may come in contact with native chordae. I would be concerned for constant friction between the artificial chord and well-functioning native primary and secondary chordae and the possible risk for rupture this presents over the long term. I have observed chord rupture with friction between 2 artificial chordae.
4. It is theoretically possible that an excessively short diagonal chord may lead to valve restriction during diastole.

Clear evidence exists that a short coaptation-septal distance and posterior leaflet height greater than 15 mm indeed increases the risk for SAM. Hence, my preference for effectively shortening the posterior leaflet with 1 artificial chord rather quickly addresses both of these risk factors without affecting coaptation depth. I applaud the authors for their novel techniques in addressing SAM and providing additional options to the surgeon.

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MORE INFORMATION ABOUT THE PATTERN OF LYMPHATIC SPREAD COULD IMPROVE THE EFFECTIVENESS OF SURGERY FOR ESOPHAGEAL CANCER
To the Editor:

We read with interest the article by Li and colleagues¹ recently published in the *Journal*. They investigated the distribution of lymph node metastasis in thoracic esophageal squamous cell carcinoma. This is an important topic because several articles have shown the relation between nodal involvement and worse prognosis of these patients.^{2,3}

To achieve a homogeneous sample, the authors included in the analysis only patients who underwent R0 resection without neoadjuvant therapy, which could modify nodal metastasis pattern.⁴

The authors found paratracheal lymph nodes as the most frequently involved (15.9%), followed by middle paraesophageal (14%), paracardial (11.2%), and lower paraesophageal (11%) lymph nodes.

In our previously published article,⁴ we found paraesophageal lymph nodes as the most frequently involved (31.9%) in a similar subsample (patients who underwent R0 resection for thoracic esophageal squamous cell carcinoma without neoadjuvant therapy), followed by paracardial (19.8%), perigastric (16.4%), and subcarinal (11.2%) lymph nodes.

Despite small differences in percentages (perhaps due to more superficial esophageal cancer presented by Li and colleagues), the results of both articles^{1,4} suggest that a map of the distribution of nodal metastasis might provide useful information to plan the operative technique and adequate

lymphadenectomy. According to the literature, we think that different maps based on histology (squamous cell carcinoma or adenocarcinoma), neoadjuvant therapy (performed or not), and tumor site (upper thoracic, middle thoracic, lower esophagus, or esophagogastric junction) could be made.

Moreover, we would like to underline the importance of the map of nodal metastasis after neoadjuvant therapy. In fact, the rate of esophageal squamous cell carcinoma treated with neoadjuvant therapy has increased since the 1980s, and neoadjuvant therapy followed by esophagectomy currently is performed by most clinicians.⁵ A specific map for this therapy pattern is worthwhile because the distribution of nodal metastasis could be affected by preoperative treatment,⁴ and it requires a different map compared with patients who undergo only surgery.

This strategy could suggest the most frequently involved lymph nodes in each combination of the above-mentioned variables, leading to an improvement of the effectiveness of surgery. Therefore, further studies are needed to explore the reasonableness of this idea, to exchange opinions among research groups, and to gather information for map construction.

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Reply to the Editor:

We thank Cavallin and colleagues for their interest in our article.

Although controversies still remain in the management of esophageal cancer, and neoadjuvant therapy has not been widely conducted in China, it is obvious that neoadjuvant therapy plays an important role. Over the past decade, treatment strategy has changed a lot in our center. Between 2000 and 2004, the McKeown procedure with a 3-field lymphadenectomy was performed unselectively to all patients with esophageal cancer. Since 2005, Ivor-Lewis esophagectomy with 2-field lymphadenectomy has been widely performed, and the 3-field lymphadenectomy procedure was selectively applied on the basis of ultrasound and computed tomography information considering a higher risk of complications. Although adjuvant chemoradiotherapy after surgery was routinely performed for advanced cancers, the prognosis remains disappointing in our experience. Therefore, we also think neoadjuvant therapy could improve the prognosis of surgery.

As mentioned in our article, only 30 of 1491 patients with squamous cell carcinoma (SCC) received chemotherapy or radiotherapy before surgery between 2006 and 2010 in our center.¹ There are several factors. Surgeon's preference may be the first issue. The idea of neoadjuvant

therapy for esophageal cancer has not been widely accepted by surgeons in China. Different pathologic patterns from the West and increased risk of complications may be 2 important factors influencing their treatment decision making. Because most patients with esophageal cancer came from poor rural areas, heavy treatment costs and inadequate medical insurance would be the second reason. However, in 2011, China spent only 4.98% of its gross domestic product on health care. On the other hand, patients traditionally prefer to receive resection when the cancer is pathologically confirmed, so patients' compliance for neoadjuvant therapy would be another major factor. Finally, lack of prospective trials was the most important problem. One latest study showed that preoperative chemoradiotherapy could improve survival among patients with potentially curable esophageal cancer.² However, the results were limited because of the small sample of patients with SCC. More randomized trials with a larger sample for neoadjuvant therapy for those with SCC are still needed.

At present, the treatment strategy for esophageal cancer is not uniform in China, not only the administration of neoadjuvant therapy but also the choice of surgical approach, reconstruction route, and extent of lymphadenectomy. Considering the frustrating prognosis, efforts are necessary to improve the survival. Randomized clinical trials are being performed in our center. Because the left thoracic procedure is widely performed in China,³ one study comparing the left and right thoracic approaches (ClinicalTrials.gov identifier, NCT01047111) has enrolled 300 patients with middle and lower esophageal cancer since 2010, and follow-up information is being collected. Another study comparing 3-field lymphadenectomy and 2-field lymphadenectomy is ready to begin and has been approved by the