

See Article page 527.



Commentary: The anterior approach to Pancoast tumors: An oldie but a goodie

Pedro Reck dos Santos, MD, MSc, and Jonathan D’Cunha, MD, PhD



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Pancoast tumors are not commonly seen in our practice, but in carefully selected candidates, surgery may be indicated. These are complex cases that can challenge even the most experienced surgical team. The challenge of each case is unique as is the surgical approach.

The report from Hashimoto and Sakamaki¹ nicely illustrates the anterior approach to a superior sulcus tumor in a patient who had central venous thromboembolism. Generally, these patients benefit from neoadjuvant therapy; however, the authors elected to go directly to surgical resection due to this fresh central clot and its risk of migration. Intraoperatively, resection of the phrenic nerve was necessary, and the authors reconstructed the nerve using an intercostal nerve graft. Importantly, the authors bring to light a critical issue: postoperative shoulder motion. There was no mediastinoscopy, and only a limited endobronchial ultrasound analysis was used to stage the mediastinum. Negative tumor margins were achieved (stage IIIA, pT4N0M0), and hopefully the patient will benefit from long-term survival. Phrenic nerve function was not followed postoperatively.

Several approaches described in the literature can be used to manage the Pancoast tumor anteriorly, like transmanubrial, transclavicular, and hemi-clamshell, among others.² The importance and the awareness of these techniques are fundamental for the management not only of the superior

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The anterior approach for the management of Pancoast tumors is generally used for cases in which invasion of the subclavian vessels is anticipated. It is a good approach to have in the “toolbox.”

sulcus tumor but also for other situations, such as the resection of malignancies that invade the thoracic inlet. Nonmalignant conditions, including the management of trauma that may involve the subclavian vessels and situations in which thoracic surgeons provide surgical access for spine surgeons when they need to operate areas like the cervicothoracic vertebral transition, are also applicable.

For Pancoast tumors specifically, the choice of the approach is critical. While the invasion of the subclavian vessels is, in general, an indication for anterior approach, intervertebral foramina spine invasions are better served with a posterior approach, frequently involving a multidisciplinary surgical team for the resection of locally advanced tumors.³ In addition, the use of a minimally invasive approach (video-assisted thoracoscopic surgery or robotic) to perform the lung resection can be combined with either anterior/posterior techniques as well, minimizing morbidity while achieving complete resection.

As the field of general thoracic surgery progresses, and we see more and more often tumors diagnosed at early stages, our practice has been shifting the focus to the management of ground-glass opacities, early-stage lung cancers, and the like. That was certainly not the case back in the early era of Pancoast management.^{4,5} These early reports are a must-read for anyone in our specialty, and we highly recommend the discussion part, where the reader will be delighted with the opinions from giants of our field like Drs Darteville, Ginsberg, Shaw, and Paulson, among

From the Department of Cardiothoracic Surgery, Mayo Clinic Arizona, Phoenix, Ariz.

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Address for reprints: Jonathan D’Cunha, MD, PhD, Department of Cardiothoracic Surgery, Mayo Clinic Arizona, 5777 E Mayo Blvd, Phoenix, AZ 85054 (E-mail: DCunha.Jonathan@mayo.edu).

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others. Topics like preoperative radiation, the choice of anterior versus posterior approaches, N3 supraclavicular management, C8-T1 nerve root involvement, and other “pearls” are discussed by those who initially tackled these complex tumors.

The authors should be congratulated on their surgical “tour de force” with this patient, and we highly recommend a thorough understanding through their report and the original literature in this area. A busy general thoracic surgeon and their team will need it at some point in their career.

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