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REPLY: WE ALL LOOK FOR HIGH EVIDENCE LEVELS

Reply to the Editor:

Treasure and colleagues¹ correctly point out that to date, no prospective randomized trial investigating surgical pulmonary metastectomy has been successfully completed. To the authors' credit, they conducted abbreviated randomized (N = 93),² and prospective observational (N = 419)³ studies that suggest that pulmonary metastectomy for colorectal cancer may not be as beneficial as assumed due to "higher than expected" survival rates in control (ie, nonsurgical) patients. Metastatic colorectal cancer has always been considered more biologically indolent compared with metastatic disease from other cancers such as sarcoma/melanoma, perhaps contributing to their findings. Disease-free survival was not assessed in these studies. Regardless, they conclude that there may exist only a "small" survival advantage for resection of lung metastases. Their studies challenge a conventional belief that patients with colorectal pulmonary metastases have little to no chance of 5-year survival unless the "cancer is removed."

In their letter, the authors make the statement that "there is no more than strong but unsubstantiated belief" ...that pulmonary metastectomy will provide survival benefit.¹ It is clearly neither feasible nor reasonable that all recommendations are based on definitive randomized trials. An inherent bias favoring surgery notwithstanding, this is certainly true for the treatment of pulmonary metastases where overall patient numbers are relatively low, patient populations heterogeneous, pathologies multiple, and a growing number of nonsurgical options available. For example, high survival rates of patients undergoing postchemotherapy resection of metastatic disease from nonseminomatous germ cell cancers have been demonstrated by multiple retrospective surgical series and ostensibly by chemotherapy trials. Any

thought of randomizing these young and otherwise healthy patients into an arm of nonsurgery would likely not be well received.

Although controlled trials are lacking, there exists a considerable amount of B-level evidence to support pulmonary metastectomy.⁴ A report from the International Registry of Lung Metastases, although approaching one-quarter of a century old, still stands as not only the largest series but also arguably the most compelling with respect to demonstrating the potential for very long-term survival after surgery for all types of pulmonary metastases, including 645 patients with metastatic bowel cancer.⁵ A meta-analysis cited by the authors of this letter also represents another very large series of nearly 3000 patients undergoing pulmonary metastectomy specifically for colorectal cancer. Five-year survival in that study impressively exceeded 60% for favorable subsets.⁶

As with any surgery, risks must be weighed against potential benefits. Few would consider a minimally invasive (eg, video-assisted thoracoscopic surgery or robot-assisted surgery) wedge excision of a limited number of pulmonary metastases in a good-risk patient as doing harm. Indeed, the authors' own article states: "It should be noted that in the context of thoracic surgery these [metastectomies] are among the least hazardous lung operations."² In contrast, repeated cycles of chemotherapy, to which many of these patients might otherwise be subjected, is associated with costs, morbidity, and occasional mortality.

Treasure and colleagues¹ are to be commended for their efforts to elevate the evidence level in the management of colorectal cancer metastatic to the lung. However, their reports need to be considered along with many other studies within a multidisciplinary forum.

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