strategy but more precisely define the triggers for surgical intervention. Without data from controlled clinical trials, surgical resection with the intention of intercepting cancer progression rather than being a “free lunch” may be a slippery slope toward unnecessary and potentially harmful interventions that betray our “do no harm” axiom.

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Check for updates

Commentary: Computed tomography screening for lung cancer at large in China: Early cure or definitive overtreatment?

Nirmal K. Veeramachaneni, MD

In this issue of the *Journal*, Zhang and colleagues¹ report the results of surgical resection of incidentally found pure ground-glass opacities (GGO; 76.3%) or part solid-GGO (22.6%). In this single-center study of predominantly female, middle-aged, never-smokers, patients underwent computed tomography (CT) scans for arbitrary reasons. Almost none of these patients would qualify for lung cancer screening based on current guidelines.² CT imaging was completed as part of a regular health examination due in part to the low cost and wide availability of CT scans. Now faced with a lesion found on a CT scan, these patients uniformly underwent surgery. Patients in this study did remarkably well with wedge resection. None had nodal spread of disease, and 5-year recurrence-free survival was 100%. Even in those patients found to have invasive cancer on final pathological evaluation, lack of a lobectomy did not

Nirmal K. Veeramachaneni, MD

CENTRAL MESSAGE

Lung cancer screening without consideration for pretest probability leads to surgeries of unclear benefit.

worsen the recurrence rate. Are the authors documenting a strategy of curing lung cancer early, or is this an exercise in overtreatment?

Previously reported results from JCOG0201 show significantly different 5-year overall survival between patients with any GGO and those with “pure solid” lesions.³ With the presence of GGO, survival was >90%, regardless of solid (invasive cancer) component size.³ In the study cohort of Zhang and colleagues (98.9% with GGO), efforts to classify tumor invasion on frozen sections might have been unnecessary, given the positive prognostic advantages associated with GGO. As shown in JCOG0201, and substantiated in the current article, nodal spread is rare in these cases, and aggressive surgery is not required.³

The authors note that one motivation to pursue surgery is to avoid unnecessary CT scans. This poses a conundrum, as these patients still required CT scans for long-term follow-up even when surgical resection was completed. Although

From the Department of Cardiovascular and Thoracic Surgery, University of Kansas Health System, Kansas City, Kan.

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Address for reprints: Nirmal K. Veeramachaneni, MD, Department of Cardiovascular and Thoracic Surgery, University of Kansas Health System, 4000 Cambridge St, Kansas City, KS 66160 (E-mail: nveeramachaneni@kumc.edu).

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the optimal interval for CT scans remains unclear in GGO surveillance, the duration of radiographic follow-up to conclude a benign nature is much longer for a GGO than for a pure solid lesion.⁴ As documented in the Italian MILD trial, over a 50-month follow-up period, the rate of GGO progression to cancer was very low, with 70% of lesions remaining stable, resolving, or decreasing in size.⁵ Such reports of stability pose a concern for overtreatment in the current article, in which 63% of patients underwent an operation, with <6 months of preoperative radiographic surveillance.

In this low-risk cohort, patients have little to gain from CT scans and all the well-established risks of radiation. Furthermore, we do not know the true denominator—under this model of care, how many patients receive an unnecessary scan, based on current guidelines? How many patients are exposed to unnecessary radiation?

Given the lack of strong evidence to support resection of GGO,^{4,5} our current institutional approach has erred toward

radiographic follow-up with adherence to current screening recommendations.² Zhang and colleagues offer an aggressive counterpoint with excellent surgical results but lingering uncertainty as to the overall benefit.

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Commentary: Sublobar resection for in situ and minimally invasive adenocarcinoma—less is more

Benjamin Wei, MD, and
Juan A. Muñoz-Largacha, MD

The implementation of lung cancer screening programs has led to increased detection of smaller lung nodules and ground glass opacities (GGOs).¹ In China, screening of a

Benjamin Wei, MD, and Juan A. Muñoz-Largacha, MD

CENTRAL MESSAGE

The therapeutic approach for pulmonary AIS/MIA remains controversial. Sublobar resection may be an adequate strategy with promising survival outcomes.

traditionally “non-high-risk” population has revealed many early-stage (0/IA) lung cancers.² Lobectomy continues to be considered the standard of care for early-stage lung cancer as described previously.³ However, the appropriate management of and therapeutic approach to adenocarcinoma in situ (AIS) and minimally invasive adenocarcinoma (MIA) remain controversial. In their

From the Division of Cardiothoracic Surgery, Department of Surgery, University of Alabama at Birmingham, Birmingham, Ala.

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Address for reprints: Benjamin Wei, MD, Division of Cardiothoracic Surgery, Department of Surgery, University of Alabama at Birmingham, 703 19th St South, Zeigler Research Building, Room 701, Birmingham, AL 35294 (E-mail: bwei@uab.edu).

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