Pneumonectomy for Stage IIIA NSCLC: A Chance, Not a Calamity

To the Editor:

Recently, Shah and colleagues [1] questioned the role of pneumonectomy for stage IIIA non-small cell lung cancer (NSCLC) and concluded that long-term survival was within acceptable range, but the procedure is not advisable after induction therapy [1]. We fear that their conclusion may be misleading.

Indeed, the effects of surgery after induction therapy for stage IIIA is still unclear, particularly in advanced forms requiring pneumonectomy, but we believe that this decision should depend on the surgical experience. In our 30-year surgical practice including 5005 patients with NSCLC, postinduction stage IIIA consisted of 199 yT1-3N2 (72.4%), 61 yT3-4N1 (22.2%) and 15 yT4N0 (5.4%); 580 patients had lobectomy, following induction therapy in 86; and 887 had pneumonectomy, following induction therapy in 189. The early postoperative mortality rates were 3.4% and 2.3% in lobectomy without and with induction, respectively (p = 0.84), and 6.3% and 3.2% in pneumonectomy without and with induction, respectively (p = 0.098). The 5- and 10-year survival rates of stage IIIA patients were 29.8% and 19.5% in the lobectomy group versus 24.6% and 14.2% in the pneumonectomy group. Interestingly, the 5% difference did not change with time (unpublished data). Similarly, others [2] observed that the need for a pneumonectomy should not be a reason to exclude patients from a potentially curative procedure in stage IIIA, both pneumonectomy and lobectomy being safely performed following induction therapy.

During the discussion, Shah and colleagues agreed to justify ending the operation in patients with intraoperative N2 finding when pneumonectomy was mandatory. Besides giving up possible complete-resection with acceptable risk and long-term outcome, such an attitude exposes one to a futile exploratory thoracotomy with its own risks [3]. The low quality of life was also mentioned as a major consideration for avoiding pneumonectomy. In our opinion, a decreased quality of life does not justify ignoring a chance of a cure, and it is worth remembering that a living problem is better than a dead patient.

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References

Reply

To the Editor:

We appreciate Arame and colleagues [1] for their interest in our article [2]. The authors question our conclusion that pneumonectomy might not be appropriate after induction therapy for stage IIIA disease, and cite their experience and with 189 patients who had pneumonectomy after induction therapy for stage IIIA disease over a 30-year period. We appreciate their concern of denying patients potentially curative therapy. However, our results that question the benefit of pneumonectomy after induction therapy for stage IIIA disease are consistent with a large, randomized controlled trial that showed that performing surgical resection after induction treatment did not lead to improved survival beyond that provided by definitive chemoradiation [3]. We urge Arame and colleagues to subject their data to peer review and publish their results so that physicians who treat lung cancer have even more evidence available to guide treatment. In particular, we urge them to consider the inherent effect of selection bias in a series of surgical patients and to draw on their extensive experience with lung cancer and create a matched control group of nonoperative patients so that the potential benefits of pneumonectomy in this situation can be even better understood. In their analysis, we also caution them to consider the pitfalls of making broad conclusions based on outcomes from such an extended time period, considering that both diagnostic tools (e.g., positron emission tomography) and treatment strategies (e.g., increased use of sleeve lobectomy) have dramatically changed the current treatment of lung cancer.

We do have concerns, though, regarding the authors’ suggestion that the psychological trauma of an exploratory thoracotomy is worse for patients than a noncurative pneumonectomy. We agree that patients would sacrifice some degree of quality of life for an improved chance of cure. However, Arame and colleagues must acknowledge that many sources have documented both the perioperative risks of pneumonectomy and the effects of pneumonectomy on subsequent quality of life [4, 5]. Although it is worth remembering that a living problem is better than a dead patient, creating problems with a therapy should be tolerable only if that therapy definitely improves a patient’s chance of cure. Finally, we also believe that it is worthwhile to point out that, in the modern era, restaging with techniques such as video-assisted thoracoscopic surgery or endobronchial ultrasound should minimize the number of patients who undergo thoracotomy and aborted resection owing to persistent N2 disease.