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Letter to the Editor

In response to Hsia TC et al. "Addition of chemotherapy improves overall survival in patients with T2N0M0 non-small cell lung cancer undergoing definitive radiation therapy: An analysis of the SEER database"

Prospective clinical trials have been conducted in numerous clinical settings to answer questions that are raised by clinicians. Randomized phase III trials and their meta-analyses have been the gold standard methods to address unanswered questions and define new treatment strategies. Many cooperative trial groups have been performing large clinical trials which contribute to novel treatment modalities in oncology. Clinical trials, however, have many drawbacks for clinicians who practice on a regular basis. In order to protect human rights and conduct ethical studies, requirement that are enforced by federal and local agencies have increased significantly over recent decades. Financial and infrastructure demands add additional complexity and challenges to the ethical and scientific execution of clinical trials. Moreover, outcomes may not be readily available for years after completing the study.

Despite lack of prospective data collection and statistical planning, retrospective studies have advantages over clinical trials in many aspects. Subjects have been already exposed to interventions with outcomes so that no long-term follow-up is necessary. Data from retrospective analyses are thus available much sooner than in prospective studies. Furthermore, large database such as SEER and National Cancer Database allow analysis of tens to hundreds of thousands of subjects in retrospective analyses; it is impossible for most clinical trials to include these large numbers of study subjects.

Our analysis of the SEER database identified a total of 6075 and 3138 patients for AJCC 6th (T2; 3–7 cm) and 7th (T2a; 3–5 cm, T2b; 5–7 cm) version, respectively [1]. Kaplan–Meier's estimates demonstrated that the chemotherapy group had a statistically significant longer five-year overall survival than the non-chemotherapy group in patients with AJCC 6th T2 (19.9% vs 15.8%, $p = 0.0023$) and AJCC 7th T2b (5–7 cm, 20.9% vs 13.6%, $p = 0.0046$) but not those with AJCC 7th T2a (3–5 cm, 24.3% vs 21.1%, $p = 0.4369$). We are aware that subjects were not equally randomized into either arm, and therefore these findings need to be taken carefully. Hsia et al. reported there is no difference in survival between chemo ($n = 47$) and no chemotherapy ($n = 132$) groups in patients with cT2N0 non-small cell lung cancer in the Taiwan cancer registry [2]. This relatively small study does not invalidate our results, but certainly suggests the need for further investigation into this topic.

We appreciate Hsia et al. for their interest in our study and reporting their own analysis on their patient population in Taiwan. We look forward to opportunities to participate in clinical trials to address this issue.

References

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