Recently, we read with great interest the article by Zhang and colleagues (1) in which the authors reported an overall case fatality rate (CFR) of 27.6% (95% confidence interval [CI] = 6.4% to 54.4%) in coronavirus disease 2019 (COVID-19)–infected cancer patients treated with surgery. In addition, they found no association between surgical treatment and increased risk of severe COVID-19 through individual patient data analysis. This excellent study has helped us understand surgical safety of cancer patients with COVID-19. However, we fear that this study may encourage surgeons to operate without due caution and wish to express several concerns regarding the surgery-related results for this particular group of patients.

When performing the subgroup analysis on CFR for patients treated with surgery, the authors included the study by Tian and coworkers (2) in which a CFR of 60.4% was shown. In fact, Tian et al. (2) reported that 119 of 197 cancer patients had severe COVID-19 rather than death in their study. Therefore, this study should not have been included in the subgroup analysis.

Meanwhile, they appear to have missed an international, multicenter, prospective cohort study (3) published within the inclusion window. This study showed that 30-day mortality was associated with malignant disease (vs benign or obstetric diseases) in patients undergoing surgery who had a confirmed SARS-CoV-2 diagnosis within 1 week before or 1 month after surgery (odds ratio [OR] = 1.55, 95% CI = 1.01 to 2.39, P = .046). We would like to use the same method by R statistical software to recalculate the overall CFR in surgery for cancer patients with COVID-19. As shown in Figure 1, after excluding the study by Tian et al. (2) and including the COVIDSurg Collaborative study (3), the overall CFR was 22.6% (95% CI = 17.4% to 28.1%) in COVID-19–infected cancer patients treated with surgery, with a statistically nonsignificant heterogeneity (Q = 3.2, 2-sided P = .665, I² = 0%).

In the individual patient data analysis, the authors extracted data of the subjects from studies by Liang et al. (4) and Zhang et al. (5). In both studies, most patients either underwent surgery over 4 weeks prior to COVID-19 diagnosis or did not have information regarding timing of surgery. Although the effect of time interval between surgery and COVID-19 diagnosis on clinical outcomes is still unclear, the impairment of immune

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**Figure 1.** Forest plot of overall case fatality rate of coronavirus disease 2019 patients who underwent cancer surgery. The squares represent the effects of individual studies, with their sizes varying to reflect the weight of a particular study in the overall analysis (larger squares indicate more weight). The error bars represent the 95% confidence intervals of the individual studies. The small ticks represent case fatality rates of the individual studies. The dotted vertical line and the diamond represent the overall effect, with outer edges representing the 95% confidence intervals. A 2-sided P value is used for reporting the result. CI = confidence interval.
function and induction of systemic inflammatory response in the early postoperative period may exacerbate the progression and disease severity. A most recent study showed that mortality was increased in patients undergoing surgery at 0-2 weeks, 3-4 weeks, 5-6 weeks, and at least 7 weeks after COVID-19 diagnosis (OR = 4.1, 95% CI = 3.3 to 4.8; OR = 3.9, 95% CI = 2.6 to 5.1; OR = 3.6, 95% CI = 2.0 to 5.2; OR = 1.5, 95% CI = 0.9 to 2.1, respectively) (6). Thus, the risk of death may be higher with a closer time interval between surgery and COVID-19 diagnosis. The association between surgery and outcomes in COVID-19–infected cancer patients needs to be further evaluated by prospective studies in large cohorts with a sufficient sample size.

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Data Availability
The data underlying this correspondence are available in the article.

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