Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Risk factors for in-hospital mortality in patients with cancer and COVID-19

Authors' reply

We thank Guosen Zhang and colleagues and Kaibo Guo and colleagues for their comments in response to our recent article.[1]

Guo and colleagues pointed out that the mortality rate of inpatients with COVID-19 in Wuhan, China, reported by Zhou and colleagues[2] was 28%. However, the enrolled adult inpatients in the study by Zhou and colleagues[2] had definite outcomes at the early stage of the COVID-19 outbreak, and the shortage of medical resources and delayed treatment led to a much higher mortality rate at the time than was reported in our article. As a study focusing on patients with cancer, tumour-related indicators were given priority to be included in the multivariate analysis. Patients with cancer are at high risk of venous thromboembolism, which is associated with a high D-dimer concentration.[3] Furthermore, D-dimer concentration is influenced by tumour-related factors, such as surgery and cancer progression.[4] Information on Sequential Organ Failure Assessment scores was not available in our study.

Zhang and colleagues discussed the predictive value of age on COVID-19 mortality in our analysis. There was no significant difference in age between survivors and non-survivors in patients with solid tumours (odds ratio [OR] 1·02; 95% CI 0·99–1·05; p=0·269) or in patients with haematological malignancies (0·97; 0·93–1·02; p=0·251). As for the association between receiving chemotherapy within 4 weeks before symptom onset and mortality, the OR was 4·42 (95% CI 1·53–12·80; p=0·006) after excluding patients who received additional treatments, and was 4·04 (1·24–13·20; p=0·021) after adjusting by cancer stage.

We definitely agree with the authors' comments about the limitations of our study and we still hope that our results provided some useful information at the early stage of the COVID-19 outbreak for oncologists. Further studies with large sample sizes and long-term follow-up are warranted to better understand the effects of COVID-19 on outcomes in patients with cancer.

We declare no competing interests.

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