COVID-19 and the risk to cancer patients in China

A novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) as it was subsequently named, was first identified in bronchoalveolar lavage fluid from a patient in Wuhan, Hubei province, China, in December 2019.1,2 The World Health Organization declared (SARS-CoV-2) as it was subsequently named, was first identified in A novel coronavirus, severe acute respiratory syndrome coronavirus COVID-19 and the risk to cancer patients in China

EDITORIAL

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A rigorous and wide-ranging analysis of a large quantity of data has led to some interesting conclusions. They identified 38 studies, all conducted within China involving 7094 patients with COVID-19. Within this cohort of individuals with SARS-CoV-2 infection, patients with cancer were over-represented (1.4% compared to 0.26% of the general population in China) and were more likely to experience severe events (odds ratio = 2.2). This is in-keeping with Liang et al’s similar findings from 18 patients with COVID-19 and cancer in March 2020, the first cohort of its kind to be reported.4 Perhaps people working within oncology have instinctively reached these same conclusions, but it is useful to have them validated in this way.

Tian et al’s systematic review of patients with COVID-19 and cancer is a prime example of such progress.5 A number of groups have studied cohorts of patients with cancer who contract COVID-19, in order to try to develop a clearer understanding of the risk from the virus faced by such individuals, based upon their diagnosis, disease stage, treatment, gender, age and co-morbidities.7–10 Older age and co-morbidities, which are established risk factors for severe events and death from COVID-19, are more common in patients with cancer. However, there is growing evidence that even after correcting for such confounders, patients with haematological malignancies and active cancer (progressing vs remission) are at higher risk from the virus.7,8 With regard to the impact of anti-cancer treatments on COVID-19 risk, the jury is perhaps still out, but, to the relief of oncologists around the world, there are increasing data to support the use of gold standard treatments.8,9 Hopefully, further studies will confirm that specific anti-cancer therapies (surgery, chemotherapy, radiotherapy, immunotherapy, endocrine and targeted therapy) are not specifically associated with increased COVID-19 risk.

A limitation of Tian et al’s meta-analysis is that it only includes Chinese studies. Two other studies, from the United States and Iran, which otherwise fitted with their inclusion criteria, were excluded because they were conducted outside of China. However, presumably their conclusions are somewhat transferrable to other populations of different ethnicity. They also did not make allowance for testing bias or correlating factors. Individuals, such as patients with cancer, who are attending hospital frequently are more likely to be both tested for SARS-CoV-2 and exposed to the virus. Furthermore, as previously discussed, a number of variables (such as age and co-morbidities) that increase COVID-19 risk also predispose to cancer.

Rather than taking a cohort of patients with cancer and studying those that develop COVID-19, Tian et al have looked at cancer patients within a cohort of individuals with COVID-19, potentially allowing direct comparison between COVID-19 patients with and without cancer. As such, their study could be taken forward as a precursor to further multi-variate analyses that might help in our quest to clarify the specific threat that SARS-CoV-2 poses to individual patients with cancer. This in turn would allow oncologists to get back to what they do best—facilitating patients’ choice of treatment plan in which risk is minimised and benefit optimised.

CONFLICT OF INTEREST

Presently, Professor Stebbing, the Editor-in-Chief of Oncogene has sat on SABs for Vaccitech, Heat Biologics, Eli Lilly, Replete, Alveo, Certis Oncology Solutions, Greenmantle, Zedsen and Benevolent AI,
has consulted with Lansdowne partners and Vitruvian. He sits on the Board of Directors for BB Biotech Healthcare Trust. None of these conflicts are relevant here.

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