



COVID-19 AND CANCER

Risk Factors for Increased Mortality in Covid-19 Patients with Cancer

Dr. Aakash Desai [Assistant Professor of Medicine, Mayo Clinic, Rochester, MN, Former Patient Education Ambassador, GRACE, Member, Career Development Community for the International Association of the Study of Lung Cancer (IASLC)]

TRANSCRIPT

Hello and welcome everyone. I'm Aakash Desai. I'm a current Hematology and Medical Oncology Fellow at Mayo Clinic in Rochester. Today, I'm going to be talking about COVID-19 and cancer from a vaccination standpoint.

I have no disclosures for this talk. So, in terms of the outline of my talk today, I will be initially talking about COVID-19 and cancer, and the risk for COVID-19, especially in cancer patients. I will then be talking subsequently about the need for vaccination and vaccination guidelines. And then I will end my talk with a discussion on boosters and data.

So, COVID-19 and cancer — I think the initial reports when the COVID-19 pandemic hit back in 2020, started coming out showing that patients with cancer were more likely to get COVID-19, and then, subsequently, also that patients with cancer were more likely to die of COVID-19. This is a study that was published with 928 patients through the COVID-19 and Cancer Consortium. I had the privilege of working with this consortium on this initial data. And this was, back then in 2020, the largest cohort of patients with cancer confirmed with SARS-CoV-2 in this database.

Essentially, this grassroots consortium was able to identify about 928 patients, and then subsequently studied the variables with the primary endpoint of 30-day all-cause mortality, meaning that they wanted to find out the risk factors for patients in patients with cancer who get COVID-19, what are the risk factors for death in those cases within the first 30 days.

And what we found with this is that the 30-day all-cause mortality in patients with cancer with COVID-19 was 13%. And the risk factors for increased mortality were older age, male sex, presents of two or more comorbidities, and former smoking status. These were general clinical variables, which were associated with an increased risk of death.



In terms of the cancer-specific clinical variables that were independently associated with relatively increased rates of death was a performance status of two or more, meaning that patients who were weaker, who had decreased activity, and were just having a lot of comorbidities just from cancer itself, and issues with cancer would have a higher incidence of mortality with COVID 19; patients who had active or measurable cancer, as well as patients who had progressive cancer. In fact, patients with progressive cancer had five times the risk of death compared to other patients.

So, the conclusion from the study was that even fit patients with cancer with few morbidities can proceed with appropriate anti-cancer treatment. However, those with poor performance status or progressing cancer should have thoughtful conversations with their oncology providers. Back then, in 2020, when we were just trying to scratch the surface of treatments for COVID-19 especially there was no conversation about COVID-19 vaccines.

We followed this up with another meta-analysis of multiple studies that were coming out in 2021. This here graph essentially shows the number of studies that we looked at with the number of patients in each study. Predominantly, for the hospitalized patients, we identified that the risk of mortality for patients with cancer due to COVID-19 was about 30% across all these studies. And those patients, who are being treated in the outpatient, and both in the outpatient or inpatient setting, had a lower mortality rate of about 15%.

In particular, the following features were found to be associated with an increased risk of risk of mortality: hematologic malignancies or lung cancer; advanced or progressive cancer, as we discussed in the last slide; as well as active chemotherapy treatment, particularly more myelosuppressive regimens which were described; older age and comorbid condition that independently associated with severe COVID-19 further contribute to risk in patients with cancer.