

## **Review Article: The Effect of Covid-19 on Hospitalized Cancer Patients and Their Healthcare**

### **ABSTRACT**

**INTRODUCTION:** This article includes the effect of Corona virus disease on cancer patients and their healthcare facilities. The global pandemic mentioned around the world has impacted the most vulnerable group of patients- cancer. With the assistance of RT PCR tests and HRCT, oncologists and doctors have tried to provide treatment to Covid-19 patients. Cancer patients are more susceptible to Covid-19 than non-cancer or non-survivor patients, according to reports. To avoid the prevalence and infection of cancer victims, WHO has suggested staying at home and continuing their treatment through telemedicine unless the situation is critical for which they might require therapy and/or surgery. Covid-19 is here to stay so we should practice with utmost care and precaution.

**KEYWORDS:** Cancer, Covid-19, telemedicine, Infection, Radiotherapy and Chemotherapy

### **INTRODUCTION**

The present situation commenced in December, 2019 in Wuhan, China when a cluster of pneumonia victims were infected by an unknown pathogen. Severe Acute Respiratory Syndrome Coronavirus-2, or SARs-Cov-2, was later identified as the causative agent, which was later identified as a novel coronavirus. Millions of people have died as a result of this lethal illness since then. It was discovered to be linked to BatCov RaTG13, a coronavirus found in bats, implying that animal to human transmission occurred, and human to human transmission was discovered after a large number of cases began to arrive. Lakhs of patients have died everyday worldwide due to the pressure on the healthcare system and lack of specific treatments<sup>1</sup>. As a result, a public health emergency of international significance was announced. The motivation to take this topic arose from my deep interest in Oncology and the need to know how the world is considering today's situation and circumstances. The times we are facing are very tough and the right methods need to be implicated in order to save lives.<sup>2</sup>

The novel coronavirus exhibits a variety of symptoms, allowing doctors to begin therapy until it completely kills our immunity and leaves us gasping for air. Many individuals have only mild signs, and antibody testing is gradually showing that certain people have no symptoms at all but are nevertheless capable of successfully transmitting the coronavirus. It can be very dangerous to anyone they come into direct contact with in such situations. However, some people have serious symptoms and can develop respiratory failure, cytokine release syndrome, or multiorgan failure as a result. These circumstances have resulted in full lockout in most countries around the world. The Covid-19 pandemic has wreaked havoc on cancer treatment, prompting delays in diagnosis and assessment as well as the suspension of clinical trials. As a result, hospitals are gradually reorganising cancer programmes to ensure that patients receive critical care while still lowering their chance of developing the disease.<sup>3</sup>

Cancer impacts a large part of the world's population, with over 18 million cases each year. Cancer patients, on the other hand, are especially vulnerable to the novel coronavirus owing to their weakened health due to continuing chemotherapy, immunosuppressive status due to malignancy, and comorbidities. Elderly or intense staged patients are the most vulnerable of them all.<sup>4</sup>

In such conditions, the community should take enormous safety precautions, or else everyone around us will be infected with this fatal infection. The first wave of Covid-19 afflicted a large portion of the global population, and in the hopes of eradicating it, the second wave of Covid-19 struck with a new face, namely its new mutant strain. This strain has distinct symptoms than the novel coronavirus strain, but it still targets the lungs and has an impact on our respiratory system. It is recommended that we quarantine for at least 14 days to prevent it from spreading to our friends, relatives, and others.<sup>5</sup>

### **METHODOLOGY**

Cancer patients from AVBRH wardha and SMHRC Nagpur hospitals who tested positive for SARS-CoV-2 via RT PCR (Reverse Transcription Polymerase Chain Reaction) were included in the study. The sample is collected using nasal and/or pharyngeal swabs to search for the existence of novel coronavirus. Medical retrospective evidence, including demographics, clinical characteristics, laboratory observations, and chest computed tomography (CT) photographs, were recovered from medical records.<sup>6</sup>

The most prominent clinical characteristics were fever (80–82 percent), dry cough (75–81 percent), and dyspnea (50–66 percent). Dyspnea was more frequent in moderate cases (56.3 vs 11.4 percent) and non-survivors (66.7 vs 20.4 percent) at admission, although the other effects were similar in moderate and severe cases. Hypoproteinemia (89%), lymphopenia (82%), an elevated CRP level (82%), and iron deficiency were both discovered in laboratory studies. Cancer patients have a greater risk of adverse effects and declined more quickly than non-cancer patients.

The severe risks were severe respiratory distress syndrome, heart failure (16.4 percent), and acute renal injury. Patients of cancer have a higher case-fatality risk. Recovery and death took an average of 31 and 20 days, respectively.<sup>7</sup>

### **DISCUSSION**

From the past year and so, we have been observing waves of Covid-19 cases among our friends and families from young to old and it does not seem to stop. We ourselves have given rise to this pandemic and as much it exhausts us and our population there has not been much we have been able to do. In these severe times, extreme precautions should be taken to keep everyone around us safe and secure. The daily rise in the number of cases and the resulting morality has prompted lockdowns in a number of countries in order to stop the virus from spreading. The most effective public health measure remains a 14-day self-imposed quarantine by those with minor symptoms, although testing of all suspicious cases, as well as symptomatic contacts with likely and confirmed cases, will also be needed. Unlike most other countries afflicted by the coronavirus,

India was slow to take up the covid monitoring. The Indian Council of Medical Research (ICMR) updated testing recommendations in response to an uptick in Covid-19 positive cases, when it was expected that insufficient testing would result in a large number of Covid-19 cases going undetected and unnoticed in the world's second most populated region. The latest coronavirus, according to the World Health Organization, has an average R0 (contagion metric) of 2 to 2.5, indicating that people infected with Covid-19 will infect many people. This is higher than seasonal flu (R0 of 1.3), Influenza A virus subtype H1N1 (R0 of 1.2 and 1.6), and Ebola (R0 of 1.6 to 2), but lower than Severe Acute Respiratory Syndrome (SARS) (R (Zhao, 2020)).<sup>8</sup>

According to the American College of Surgeons, semi-elective surgery for obstructing colon cancers, stenting for esophageal cancers, and certain gynaecological cancers should be continued in the early stages of the pandemic, although only immediate or emergent surgery for perforated, obstructed, or actively bleeding cancers should be continued at the pandemic's height. During the worst of the pandemic, the National Health Service in England has advised that hospitals prioritise patients who need an emergency surgery within the next 24–72 hours.<sup>9</sup>

To minimize exposure of patients to infection, hypofractionation regimens are being utilized. If they are in direct touch with someone who has Covid-19 or are experiencing cough, shortness of breath, breathing problems, or a high fever, they should resume their care.<sup>10</sup> Treatment should not be reinitiated until symptoms of Covid-19 have resolved so there are no risks with their lives as this virus is a life-threatening disease and every action needs to be careful.<sup>11</sup> Meanwhile, demand for non-invasive imaging, such as computed tomography, has risen because it has a smaller infection risk, and for oncological procedures, out-of-hours operations have proven to be a successful coping mechanism used by cancer centres around the world to catch up on missed surgeries.<sup>12</sup>

Because one case series of cancer patients treated with Covid-19 neglected to record any instances undergoing immunotherapy, immune checkpoint inhibitors may be a superior option to chemotherapy, which inhibits the immune response. Patients may be less susceptible to acute infections, but they may have a cytokine release syndrome, which can exacerbate a Covid-19 infection.<sup>13</sup>

In the short term, diagnostic and treatment pathways must be modified to reduce exposure to SARS-CoV-2 infection and improve outcomes. Cancer programmes must be reorganised in the long term to protect cancer patients and allow cancer surgery and endoscopy to resume. The capacity to conduct diagnostics and elective surgery must be expanded in the long run to overcome a growing backlog of pending diagnosis and unmet needs. The impact of the Covid-19 pandemic on the prevention and care of non-Covid-19 patients should not be underestimated.<sup>12</sup>

Fever, nausea, dyspnoea, and arthralgia/myalgia are common symptoms of Covid-19, particularly in cancer patients who are receiving treatment. As a result, recognising Covid-19 signs in such patients may be difficult. With the increase in the number of cases surrounding us, automation is the best way to provide the most accurate care. Prior to this disease, teleoncology has shown similar efficacy to in-person treatment at reduced costs, with high patient and health-care provider satisfaction. By offering remote chemotherapy monitoring, symptom control,

palliative treatment, and social assistance, telemedicine may assist in cancer management. The willingness of primary-care providers to have face-to-face appointments has dwindled, with regular services in many countries turning to teleconsultations unless an in-person visit is considered appropriate. While these reforms are necessary to ensure a degree of quality of treatment, they can limit opportunities for predicting recurrence effects, advanced-care planning, and palliative care coordination.<sup>13</sup>

Cancer care professionals must alert authorities whether they have a dry cough, headache, sore throat, or come into contact with someone who has been infected with Covid-19. Based on the results of the test, they must be tested for Covid-19, followed by a 14-day quarantine or admission and care.<sup>14</sup> Standard precautions, such as hand and respiratory hygiene, safe waste disposal, sterilisation devices, and so on, should be followed. Ensure that all patients cough or sneeze with their mouth and nose covered, provide separate rooms for alleged Covid-19 cancer patients, and maintain a 2-meter space between beds in ward admissions. Providers of cancer treatment should dress in sterile, safe clothing (PPE). Living under stress and feeling under pressure are two things that are bound to happen to you on a regular basis. Extra operating hours and sleepless nights have become a part of the cancer treatment workforce as a result of a large number of patients reporting to the hospital. As a result, maintaining mental health and psychosocial wellness is almost as important as managing physical health during this period.<sup>15,16</sup>

## CONCLUSION

Physicians have to balance the dangers of contracting a Covid-19 infection against the likelihood of cancer growth, while still considering the present state of the public health system, adhering to the old *primum non nocere* definition. Health-care organisations and workforces are increasingly changing in response to the corona virus disease 2019 (Covid-19) pandemic. Other vital facets of treatment, such as cancer patient care, are being impacted by these improvements, as well as a need to reduce infection risk. Despite the lack of evidence that cancer is an individual risk factor for illness and mortality, tough choices are being made on whether aggressive treatments or palliative treatment can be prioritized. And, earlier rather than later, the right cure should be found in order to help Covid-19 patients and eradicate the corona virus from our midst.

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