

Epidemiological Study: Performing a SARS CoV-2 PCR Test Prior to Chemotherapy and Effects on Treatment Outcome During the COVID-19 Pandemic

SL Malaviarachchi# J Balawardane, NRP Perera, AN Senanayake, H Jayalath, R Samarasinghe and S Liyanage

Department of Oncology, University Hospital, General Sir John Kotelawala Defence University

#sllrasnayake@kdu.ac.lk

Cancer patients are among the most vulnerable to be infected with the COVID-19 virus. They are immune-deficient and cannot wait for treatment until the pandemic is over. Certain institutes perform the SARS-CoV-2 polymerase-chain-reaction (CoV-PCR) test before chemotherapy, while some institutes avoid it. We aimed to identify if one over the other is beneficial and use the study as a supportive tool to help set up local guidelines. Asymptomatic 140 adult cancer patients with WHO performance scale zero were selected. In Group 1, among seventy patients at UHKDU Hospital that performed a CoV-PCR test, 84.3% were not worried about taking chemotherapy during the pandemic, and 61.5% of patients did not experience any discomfort performing the CoV-PCR test. However, 42.8% experienced a delay in chemotherapy due to the CoV-PCR test. In Group 2, among seventy patients at Apeksha Cancer Hospital that did not undergo a CoV-PCR test, 92.9 % were not worried about treatment during the pandemic, and 91.5% stated they would feel better about performing a CoV-PCR test. However, 15.7% experienced a delay in chemotherapy without a CoV-PCR test. A chi-squared test of independence showed $\chi^2 = 2.54$ and (p-value = .1109, no significance), patients had no fear of undergoing chemotherapy during the pandemic among both groups. With $\chi^2 = 17.48$ and (p-value = .000029, significant) patients appreciated the value of undergoing a CoV-PCR test in both groups. However, $\chi^2 = 13.60$ and (p-value = .000022), there was a significant delay in chemotherapy due to performing a CoV-PCR test before chemotherapy. Authors feel that there is a need for prospective study for the cause of delay in treatment to propose solutions to reduce delay.

Keywords: cancer, CoV-PCR, chemotherapy, COVID-19, treatment delay