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.

(Figure 1A). In the low-ANC population of the FTD/TPI group, median OS tended to be longer in patients with CIN than in those without CIN [9.9 versus 5.8 months, respectively (HR = 0.49, 95% CI 0.36—0.67)]. Patients with high ANC demonstrated a similar trend [8.0 versus 4.2 months, respectively (HR = 0.45, 95% CI 0.34—0.58)] (Figure 1B). These results suggest that patients receiving FTD/TPI, especially those who develop CIN, have a survival advantage over patients receiving placebo, regardless of baseline ANC.

In conclusion, patients with low ANC are expected to have not only a good prognosis but also a survival benefit from FTD/TPI following CIN. The presence or absence of CIN may be a surrogate marker of clinical response to FTD/TPI regardless of baseline ANC, without requiring plasma FTD/TPI concentration measurements in daily practice.

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Lower detection rates of SARS-COV2 antibodies in cancer patients versus health care workers after symptomatic COVID-19

The diagnosis of coronavirus disease 2019 (COVID-19) is based on the detection of the severe acute respiratory syndrome coronavirus 2 (SARS-COV2) virus using RT-PCR from nasopharyngeal samples at the time of active infection.[1—3] Most patients infected with SARS-COV2 develop antibodies (Ab) against SARS-COV2 proteins.[1—3] The survival of cancer patients presenting with RT-PCR+ COVID-19 has been reported to be very poor, with up to 30% mortality at 30 days.[4,5]

In this work, we retrospectively analyzed cancer patients presenting with a suspicion of COVID-19 from 1 March 2020 to 16 April 2020 as part of an Institutional Review Board approved clinical trial (Oncovid-19, approved 12 March 2020) and a series of health care workers (HCWs, nurses and doctors) as part of a voluntary testing procedure in the Centre Leon Berard.

All 85 cancer patients were tested both with SARS-nCoV2 RT-PCR on nasopharyngeal samples and a point-of-care Ab diagnostic test, Toda Coronadiag® (TODA Pharma, Strasbourg France). Coronadiag is a rapid lateral flow immunoassay (LFIA) providing results in 10 min using a finger-pricked blood sample. This test was carried out 15 days or more after a positive RT-PCR or COVID-19 symptoms.

The LFIA test was carried out in all 244 HCWs. In addition, SARS-CoV2 RT-PCR was found positive previously (>15 days) in 14 HCWs presenting with clinical symptoms, and was carried out in the three HCWs testing positive for SARS-COV2 Ab.

Ten of 85 (12%) cancer patients had documented SARS-CoV2 on RT-PCR, and five (6%) had a positive Ab detection test. Three of the 10 (30%) RT-PCR-confirmed infected patients had detectable Ab anti-SARS-COV2 15 days after the clinical start of the infection. Two of the 75 (2.3%) remaining cancer patients screening negative for RT-PCR had detectable SARS-COV2 immunoglobulin G.

In parallel, all 244 HCWs were tested with the LFIA test, including 14 with a RT-PCR-documented SARS-COV2 infection: 10 of these 14 (71%) RT-PCR-confirmed infections had detectable Abs 15 days or later after clinical symptoms. Three of the remaining 230 (1.3%) HCWs had detectable Ab but a negative test for RT-PCR carried out at the same time. Two of these reported possible COVID-19 symptoms in the previous weeks.

The rate of seroconversion 15 days after documented SARS-COV2 on RT-PCR was therefore significantly lower in cancer patients versus HCWs (30% versus 71%, $P = 0.04$). Importantly, six of the seven serodiagnostic-negative cancer patients had received cytotoxic therapy or major surgical intervention in the previous 4 weeks, compared with none of the five remaining patients ($P = 0.003$). None of these patients died.

In this series, 5 of 85 (5.9%) and 13 of 244 (5.4%) cancer patients and HCWs, respectively, had detectable Ab against COVID-19. However, cancer patients had a significantly lower detection rate of SARS-COV2 Ab 15 days or later after symptoms and RT-PCR+ testing. Anti-SARS-COV2 Ab were more often undetectable in patients receiving cancer treatments in the month before testing. Additional studies will be needed to confirm whether immune response to the virus is influenced by recent cancer treatments.

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Do patients with cancer have a poorer prognosis of COVID-19? An experience in New York City

The outbreak of coronavirus disease 2019 (COVID-19) emerged in late 2019 in Wuhan, China, and has been spreading rapidly. As the infection has become widespread, concern for the influence of COVID-19 on patients with cancer has grown. Zhang et al.[1] reported a retrospective case study of 28 COVID-19-infected cancer patients with an astonishingly high mortality rate (28.6%). However, as Oh[2] pointed out, the result cannot be applied to other countries with different cancer epidemiology and practice. We herein sought to determine whether patients with cancer in the USA have a poorer prognosis of COVID-19 by analyzing the electronic medical records of Mount Sinai Health System (MSHS) in New York City.

We analyzed the electronic medical records (EMR) of MSHS from 1 March 2020 to 6 April 2020, using Epic SlicerDicer software, Verona, WI. We extracted data (sex, age, comorbidities, intubation, and mortality status as of 8 April) from patients who were positive for the COVID-19 RT-PCR test during this period. MSHS waived Institutional Review Board approval since this research used only deidentified, aggregate-level data.

A total of 5688 patients had COVID-19, and there were 334 patients (6%) with cancer among them (57, 56, 23, 18, and 16 patients with breast, prostate, lung, urothelial, and colon cancer, respectively). Without adjusting for age groups, patients with cancer were intubated significantly more frequently [relative risk, RR (95% confidence interval, CI); 1.89 (1.37—2.61)], but the rate of death was not significantly different. By stratifying patients by age groups, we detected a significantly increased risk of intubation in patients with cancer aged 66—80 years [RR (95% CI); 1.76 (1.15—2.70)]. No significant difference in intubation risk was found in other age groups. Additionally, patients younger than 50 years with cancer had a significantly higher mortality rate [RR (95% CI); 5.01 (1.55—16.2)]. However, the mortality rates of COVID-19 in cancer patients were lower than those in patients without cancer in age groups older than 50 years, though they were not statistically significant (Table 1).

Cytokine-associated lung injury is a potential etiology in severe cases of COVID-19.[3] Patients with cancer have impaired immune systems, which may decrease the frequency of overwhelming lung inflammation, contributing to these patients' non-inferior mortality rates.[4,5] Nevertheless, in young populations, whose mortality rate from COVID-19 is very low in general, baseline fragility in cancer patients may lead to a relatively higher rate of deaths.