

# Letters

## RESEARCH LETTER

### Screening for COVID-19 in Asymptomatic Patients With Cancer in a Hospital in the United Arab Emirates

As the coronavirus disease 2019 (COVID-19) pandemic grows, accumulating evidence suggests that patients with cancer have increased risk for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and subsequent morbidity and mortality.<sup>1-3</sup> Further, COVID-19 may be asymptomatic.<sup>4</sup> Despite limited evidence, the European Society for Medical Oncology recommends universal microbiologic SARS-CoV-2 screening for patients undergoing active anticancer therapy.<sup>5</sup> To identify asymptomatic COVID-19, we implemented universal microbiologic screening for SARS-CoV-2 for all asymptomatic patients with cancer prior to anticancer therapy at Alzahra Hospital Dubai, United Arab Emirates (UAE).

Such universal screening for patients with cancer was feasible in the UAE, where SARS-CoV-2 microbiologic testing is widely accessible; as of April 30, 2020, 368 patients were diagnosed with COVID-19 at Alzahra Hospital, and 12 481 patients were diagnosed in the UAE, with cumulative prevalence of 129.6 cases per 100 000 residents.

**Methods** | Between March 13 to April 4, 2020, 85 asymptomatic patients with cancer were consecutively enrolled for microbiologic screening. All patients were assessed for COVID-19 symptoms (including fever [ $\geq 38$  °C], chills, cough, dyspnea, sputum production, pharyngitis, myalgia/arthralgia, headache, and nasal discharge), and were asymptomatic at enrollment. Patients underwent baseline nasopharyngeal swab for SARS-CoV-2 polymerase-chain reaction (PCR); patients with positive PCR results underwent chest radiography (CXR) and repeated testing until 2 consecutively negative PCR results were obtained. Health care workers donned personal protective

equipment for each screening assessment. Patients with COVID-19 were contacted on April 30 to learn if they recalled preceding anosmia or dysgeusia. Outcomes were assessed until April 30. The Alzahra Hospital research ethics board approved the study and waived informed consent because all patients with cancer and health care workers were mandated to get the testing. Data were summarized as percentages and medians (ranges); 95% confidence intervals were calculated via the binomial method using SPSS statistical software (version 25.0, IBM). The analysis was performed on April 30, 2020.

**Results** | Of the 85 asymptomatic patients with cancer who underwent screening, the median age was 55 (range, 28-76) years and 48 (56.5%) were women. The cancer types were breast (25 [29.4%]), colorectal (22 [25.9%]), thyroid (10 [11.8%]), and other cancers (28 [32.9%]).

Seven (8.24%; 95% CI, 2.39%-14.08%) asymptomatic patients with cancer were diagnosed with COVID-19 by PCR screening (Table). Among those with COVID-19, 5 (71.4%) were women and cancer types were breast (2 [28.6%]), colorectal (2 [28.6%]), lymphoma (2 [28.6%]), and lung (1 [14.2%]). Five (71.4%) were receiving systemic anticancer therapy, and 2 had not yet initiated therapy.

Although initially asymptomatic, all patients with COVID-19 subsequently developed symptomatic disease. Two patients had ground-glass opacities after CXR at diagnosis. Five (71.4%) developed mild COVID-19 in the outpatient setting and resumed anticancer therapy on virologic clearance after a median (range) of 18 (14-21) days; 3 of 5 (60%) patients receiving anticancer therapy had mild infection vs 2 of 2 (100%) patients before initiation of anticancer therapy. Two patients on systemic therapy required intensive care unit admission; 1 patient receiving anti-PD-L1 therapy for lung cancer died from acute respiratory distress syndrome; and 1 patient with colo-

Table. Demographic Characteristics and Clinical Outcomes of Patients Screened for COVID-19

Characteristic	No. (%)		
	Overall cohort (n = 85)	Asymptomatic with COVID-19 (n = 7)	Asymptomatic without COVID-19 (n = 78)
Age, median (range), y	55 (28-76)	51.6 (40-76)	56 (33-74)
Female	48 (56.5)	5 (71.4)	43 (55.1)
Cancer type			
Breast	25 (29.4)	2 (28.6)	23 (29.5)
Colorectal	22 (25.9)	2 (28.6)	20 (25.6)
Thyroid	10 (11.8)	0	10 (12.8)
Other	28 (32.9)	3 (42.9)	25 (32.1)
Outcomes			
Hospitalization	7 (8.2)	2 (28.6)	5 (6.4) <sup>a</sup>
ICU	2 (2.4)	2 (28.6)	0
Death	1 (1.2)	1 (14.3)	0
Anticancer therapy delay	15 (17.6)	7 (100)	8 (10.3) <sup>a</sup>

Abbreviation: COVID-19, coronavirus disease 2019; ICU, intensive care unit.

<sup>a</sup> Not related to COVID-19.

rectal cancer remained hospitalized after discharge from the intensive care unit. None of the 6 surviving patients recalled preceding anosmia or dysgeusia. No clinical health care workers from the screening site were diagnosed with symptomatic COVID-19.

**Discussion** | Our prospective universal microbiologic screening strategy revealed that 8% (7 of 85) of asymptomatic patients with cancer had COVID-19 at our institution. Asymptomatic cases may not be identified by symptom-based screening, as recommended by the American Society of Clinical Oncology, and such patients may pose particular risk for nosocomial transmission if they are not recognized to have COVID-19.<sup>6</sup> Universal microbiologic screening for SARS-CoV-2 in such high-risk populations may facilitate earlier case identification, and implementation of infection prevention and control strategies. Limitations of this study include a single-center experience, small sample size, and observational design without control group. Further studies are needed to determine the optimal screening frequency for patients undergoing serial anticancer therapy cycles. Universal microbiologic screening for SARS-CoV-2 should be considered in oncology centers for patients undergoing anticancer therapy, particularly in regions with a high prevalence of COVID-19.

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