

## Cancer treatment in the time of COVID-19 pandemics: A new concern

We read with true enthusiasm the article by Englum and colleagues<sup>1</sup> describing the diagnosis of new cancers during the coronavirus disease 2019 (COVID-19) pandemic through a time-series study in the United States. According to the study, cancer diagnoses in 2020 decreased by 13% to 23% in comparison with the 2018-2019 time period. As they properly hint, patients with cancer are more vulnerable to becoming affected by COVID-19 moratorium-related restrictions. We know that the main target of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the immune system, and patients receiving immunosuppressive treatments such as chemotherapy are, therefore, at higher risk of being afflicted by COVID-19.<sup>2</sup> According to this report, a higher level of contact with the health care system among patients with recently diagnosed cancer could significantly increase the risk of COVID-19 infection.<sup>3</sup> This is while avoiding social and personal protective behaviors could undoubtedly increase the risk of contracting COVID-19.<sup>4</sup>

It is clear that social distancing is a promising strategy for curbing the spread of SARS-CoV-2 and will result in better control of the COVID-19 pandemic. However, distancing oneself from health care settings may cause a decline in ordinary follow-ups, and adverse consequences may arise because of patients' fear of infection.<sup>5</sup> To assess the impact of the COVID-19 pandemic on routine care (visits and chemotherapy) for patients with solid tumors, we used multivariable Poisson regression, which allowed us to estimate the incidence rate ratio (IRR) in a daily clinic affiliated with the Shiraz University of Medical Sciences. We evaluated a total of 23,256 inpatient visits and 5428 chemotherapy sessions from February 19, 2019 (1 year before the public announcement of the COVID-19 pandemic in Iran),<sup>6</sup> to November 31, 2021. The results showed annual declines in chemotherapy and in-person visits of 11% (IRR, 0.89; 95% confidence interval, 0.87-0.91) and 2% (IRR, 0.98; 95% confidence interval, 0.97-0.99), respectively.

Our findings are important because of the effect of delayed diagnoses and disrupted care on cancer patients' outcomes, which place a massive burden on both patients and health care systems. Moreover, health care systems may

not have the capacity and resources to tolerate such a burden when the number of patients with COVID-19 is surging day after day. Meanwhile, patients may opt for unsafe and risky therapeutic options such as shark cartilage extract or unknown mixed herbal medications as substitutes for standard treatment during the quarantine period.<sup>7</sup> In light of the aforementioned considerations, providing a smart distancing and protective educational system for patients with cancer during the COVID-19 pandemic is mandatory for facilitating optimal management and thereby delaying or preventing adverse outcomes such as cancer metastasis, a massive disease burden, and premature death.

### FUNDING SUPPORT

No specific funding was disclosed.

### CONFLICT OF INTEREST DISCLOSURES

The authors made no disclosures.

### REFERENCES

- Englum BR, Prasad NK, Lake RE, et al. Impact of the COVID-19 pandemic on diagnosis of new cancers: a national multicenter study of the Veterans Affairs Healthcare System. *Cancer*. 2022;128:1048-1056.
- Celardo I, Pace L, Cifaldi L, Gaudio C, Barnaba V. The immune system view of the coronavirus SARS-CoV-2. *Biol Direct*. 2020;15:30.
- Roel E, Pistillo A, Recalde M, et al. Cancer and the risk of coronavirus disease 2019 diagnosis, hospitalisation and death: a population-based multistate cohort study including 4 618 377 adults in Catalonia, Spain. *Int J Cancer*. 2022;150:782-794.
- Pasion R, Paiva TO, Fernandes C, Barbosa F. The AGE effect on protective behaviors during the COVID-19 outbreak: sociodemographic, perceptions and psychological accounts. *Front Psychol*. 2020;11:2785.
- Baum A, Schwartz MD. Admissions to Veterans Affairs hospitals for emergency conditions during the COVID-19 pandemic. *JAMA*. 2020;324:96-99.
- Molavi Vardanjani H, Bagheri Lankarani K, Hassani AH. What was the starting date of the COVID-19 epidemic in Iran? Rumors against management of public health emergencies. *Iran J Public Health*. 2020;49:2431-2432.
- Ostrander GK, Cheng KC, Wolf JC, Wolfe MJ. Shark cartilage, cancer and the growing threat of pseudoscience. *Cancer Res*. 2004;64:8485-8491.

Hamid Nasrollahi, MD

Department of Radiation Oncology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran

Hossein Molavi Vardanjani, MPH, PhD

Research Center for Traditional Medicine and History of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran

Mehdi Pasalar, MD, MPH, PhD 

Research Center for Traditional Medicine and History of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran

DOI: 10.1002/cncr.34249, Published online May 2, 2022 in Wiley Online Library (wileyonlinelibrary.com)