

LETTER TO THE EDITOR

COVID-19 and cancer: A deadly pairing

Dear Editor,

We read with interest the recently published article in the International Journal of Cancer by Marais et al.¹ The severe and acute respiratory syndrome-coronavirus 2019 (SARS-CoV2) pandemic has drastically shifted priorities in medical emergencies, where coronavirus disease 2019 (COVID-19) patients take priority over others with serious chronic pathologies, including cancer patients.² Data from the National Health Institute in Italy, in the period 2000 to 2017, assessed that, on the basis of surveys from the National Institute of Statistics and the WHO Global Cancer Observatory, a number of about 410 000 new cases of cancer were reported for each year, of which about 175 000 were deaths.³ In 2020, the National Institute of Statistics in Italy reported about 377 000 cancer diagnosis (about 1000 a day), with 55 000 cases of breast cancer, 44 000 colon carcinoma, 44 000 lung carcinoma, 40 000 prostate cancer and 36 000 bladder tumors, confirming the big concern of cancer management in Italy during the COVID-19 pandemic.⁴ As an exemplificative result, a recent study in the Maugeri's Foundation Hospital, Lombardy, reported that a reduction in cancer diagnosis and hospitalization of about 36% occurred in 2020. Only 469 patients accessed the healthcare units for cancer therapy respect to 632 patients in 2019, and only 72 patients were introduced in tumor treatment, respect to 90 patients in 2019.⁵ In the United States, the Fred Hutchinson Cancer Research Center, the University of Washington and the Seattle Cancer Care Alliance, reminding that death rate for cancer decreased of about 31% from 1991 to 2018, recommended to support and improve this positive trend.⁶

The huge concern regarding how to address diagnosis of novel emerging cancers and to support patients' caregiving during the global crisis caused by SARS-CoV2 pandemic has expanded the scientific debate about cancer in the COVID era, as physicians are obviously aware of their duty in equally considering patients with cancer as well as patients with COVID-19. The COVID-19 impact is primarily on cancer diagnosis, but also to other pathologies, for example, cardiovascular and hematological diseases. Patients are less motivated to seek medical counseling, due to a widespread fear in attending healthcare units and hospitals, but also because physicians are quite absolutely captured in addressing pandemic and COVID-19 medical emergency.⁷

A recent study reported that cancer caseload during the pandemic was reduced to 12%, (with prostate and central nervous system (CNS) tumors among the most pronounced) and at least 17% of physicians reported that patients deviated from their recommended therapy plans, because of pandemic and lockdown.⁸ In particular, the most

frequent deviations were associated with changes in department policies (77%) vs patient-specific deviations (20%) or modifications requested by patients themselves (3%). Rare deviations (less than 1%) were related to patients contracting COVID-19.⁹

When examining waiting lists, they contained, at its worst, about 27% of patients who experienced a delay to radiotherapy of more than 28 days, despite the averaged wait time up-grew of a negligible extent (19.6 days vs 18.2 days). This occurred because more pressing cases were generally prioritized.⁹ A recent cross-sectional survey on pediatric oncology providers (311 healthcare professionals widespread in 79 different countries and 213 institutions) reported that 7% underwent a complete closure of the pediatric oncology units (15 centers of 213) and 2% (5 of 213) no longer evaluated new cancer cases, because of COVID-19 emergency.¹⁰


The impact of cancer in Italy has been recently reviewed. At least in 2017 cancer, in general, caused 3 204 000 disabilities adjusted for life-years, accounting for 254 336 new cancer cases in men and 214 994 new cases in women, corresponding to a rate of 330 and 100 each 100 000 individuals, respectively. This huge burden for public healthcare was completely dismissed in the widespread debate about COVID-19 pandemic. Altogether, medical language, interest and time are currently overrating how to successfully address COVID-19, despite the increasing number of many other health disorders and severe pathologies, which should cover their professional interests, including cardiovascular and hematological disease.⁸

In addition, cancer patients may also represent a comorbidity of the utmost interest in COVID-19 pathogenesis and development. The general opinion is that having cancer would mean a higher risk to develop severity in COVID-19, so rapidly worsening also COVID-19 emergency, despite the existence of opposite opinions. Controversial data about whether cancer patients with COVID-19 have different ability to counteract the sickness makes this concern much more burdensome than before. The question if those patients must be introduced toward a preferential route in order to reduce the concerning impact of cancer on COVID-19 emergency is particularly crucial, particularly in the case of vaccination managing. Patients suffering from hematologic malignancies should be considered high priority for COVID-19 vaccination as high risk groups. No sound policy to address this big concern has been properly addressed so far. COVID-19 emergency should address the burdensome problem of patients with tumors, also in order to better manage SARS-CoV2 pandemic and COVID-19 pathology.

In conclusion, politics should address this great concern by elaborating novel health strategies about COVID-19 emergency, in order to ensure the possibility to diagnose and treat cancer even in patients with COVID-19 and reduce pandemic exacerbation in the community.

CONFLICT OF INTEREST

The authors declare no potential conflict of interests.

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REFERENCES

- Morais S, Antunes L, Rodrigues J, Fontes F, Bento MJ, Lunet N. The impact of the COVID-19 pandemic on the short-term survival of patients with cancer in northern Portugal. *Int J Cancer*. 2021. <https://doi.org/10.1002/ijc.33532>. Epub ahead of print.
- Gundavda MK, Gundavda KK. Cancer or COVID-19? A review of guidelines for safe cancer care in the wake of the pandemic. *SN Compr Clin Med*. 2020;21:1-11.
- Ueda M, Martins R, Hendrie PC, et al. Managing cancer care during the COVID-19 pandemic: agility and collaboration toward a common goal. *J Natl Compr Canc Netw*. 2020;20:1-4. <https://doi.org/10.6004/jncn.2020.7560>.
- Di Bidino R, Cicchetti A. Impact of SARS-CoV-2 on provided healthcare. Evidence from the emergency phase in Italy. *Front Public Health*. 2020;8:583583. <https://doi.org/10.3389/fpubh.2020.583583>.
- Quaquarini E, Saltamacchia G, Presti D, et al. Impact of COVID-19 outbreak on cancer patient care and treatment: data from an outpatient oncology clinic in Lombardy (Italy). *Cancers (Basel)*. 2020;12(10):2941. <https://doi.org/10.3390/cancers12102941>.
- Jones D, Neal RD, Duffy SRG, Scott SE, Whitaker KL, Brain K. Impact of the COVID-19 pandemic on the symptomatic diagnosis of cancer: the view from primary care. *Lancet Oncol*. 2020;21(6):748-750. [https://doi.org/10.1016/S1470-2045\(20\)30242-4](https://doi.org/10.1016/S1470-2045(20)30242-4).
- Gupta L, Goel A. COVID-19 at the intersections of science, morality and practice - reflections of the physician's soul. *J R Coll Physicians Edinb*. 2020;50(3):274-276. <https://doi.org/10.4997/JRCPE.2020.311>.
- Bosetti C, Traini E, Alam T, et al. National burden of cancer in Italy, 1990-2017: a systematic analysis for the global burden of disease study 2017. *Sci Rep*. 2020;10(1):22099. <https://doi.org/10.1038/s41598-020-79176-3>.
- Roberge D, Delouya G, Bohigas A, Michalowski S. Catching the wave: quantifying the impact of COVID on radiotherapy delivery. *Curr Oncol*. 2020;28(1):152-158. <https://doi.org/10.3390/curroncol28010018>.
- Graetz D, Agulnik A, Ranadive R, et al. Global effect of the COVID-19 pandemic on paediatric cancer care: a cross-sectional study. *Lancet Child Adolesc Health*. 2021. [https://doi.org/10.1016/S2352-4642\(21\)00031-6](https://doi.org/10.1016/S2352-4642(21)00031-6). Epub ahead of print.