nature research

Corresponding author(s): Dr. Balazs Halmos

Last updated by author(s): Feb 23, 2021

Reporting Summary

Nature Research wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Research policies, see our Editorial Policies and the Editorial Policy Checklist.

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a	Confirmed	
☐	☒	The exact sample size (*n*) for each experimental group/condition, given as a discrete number and unit of measurement
☐	☒	A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
☐	☒	The statistical test(s) used AND whether they are one- or two-sided *Only common tests should be described solely by name; describe more complex techniques in the Methods section.*
☐	☒	A description of all covariates tested
☐	☒	A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
☐	☒	A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
☐	☒	For null hypothesis testing, the test statistic (e.g. *F*, *t*, *r*) with confidence intervals, effect sizes, degrees of freedom and *P* value noted *Give P values as exact values whenever suitable.*
☒	☐	For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
☒	☐	For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
☒	☐	Estimates of effect sizes (e.g. Cohen's *d*, Pearson's *r*), indicating how they were calculated

Our web collection on statistics for biologists contains articles on many of the points above.

Software and code

Policy information about availability of computer code

Data collection	Microsoft Excel
Data analysis	R 3.6.2

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Research guidelines for submitting code & software for further information.

Data

Policy information about availability of data

All manuscripts must include a data availability statement. This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A list of figures that have associated raw data
- A description of any restrictions on data availability

Primary data will be made available from the corresponding authors upon request to protect patient privacy. Data availability may be subject to consultation with and contingent of approval from the Montefiore-Einstein IRB.The utilized computer code has been deposited in github (https://github.com/kith-pradhan/CovidCancerReport). All analyses were done with built-in and freely available R packages.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☒ Life sciences ☐ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see nature.com/documents/nr-reporting-summary-flat.pdf

Life sciences study design

All studies must disclose on these points even when the disclosure is negative.

Sample size	Patients who had a SARS-CoV-2 IgG test and a diagnosis of cancer were included in the analysis. The sample size was arrived at after filtering patients who were seen at Montefiore Einstein Center for Cancer Care for a SARS-CoV-2 IgG test. Please refer to consort diagram of the manuscript for details. A sample size of 261 was deemed adequate as this met our inclusion criteria.
Data exclusions	Patients were excluded if age <18 and if they did not have a diagnosis of cancer and a SARS-CoV-2 IgG test
Replication	not applicable (retrospective chart review only)
Randomization	not applicable (retrospective chart review only)
Blinding	not applicable (retrospective chart review only). Blinding was not relevant to our study as no experimental test or treatment was administered.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involved in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☐	☒ Human research participants
☒	☐ Clinical data
☒	☐ Dual use research of concern

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging

Human research participants

Policy information about studies involving human research participants

Population characteristics	Adult cancer patients who received care at Montefiore Medical Center with a SARS-CoV-2 IgG test were included in the study. This is a retrospective study. Median age of the cohort is 64 years (range 20-90). Fifty-one percent patients are female and 49% are male. Any active or past diagnosis of cancer was included and all treatment received by each patient was recorded.
Recruitment	Study participants were not recruited, only retrospective chart review was performed. Informed consent was waived by Montefiore-Einstein institutional review board as this is a retrospective chart review study
Ethics oversight	Institutional review board at Montefiore medical center provided ethics oversight. IRB # 2020-11814

Note that full information on the approval of the study protocol must also be provided in the manuscript.