Materials Design Analysis Reporting (MDAR) Checklist for Authors

The MDAR framework establishes a minimum set of requirements in transparent reporting applicable to studies in the life sciences (see Statement of Task: doi:10.31222/osf.io/9sm4x.). The MDAR checklist is a tool for authors, editors and others seeking to adopt the MDAR framework for transparent reporting in manuscripts and other outputs. Please refer to the MDAR Elaboration Document for additional context for the MDAR framework.

Materials

Antibodies	Yes (indicate where provided: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	The study was a retrospective study and did not involve antibodies.	N/A

Cell materials	Yes (indicate where provided: section/paragraph)	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID	The study was a retrospective study and did not involve cell lines.	N/A
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	The study was a retrospective study and did not involve primary cultures.	N/A

Experimental animals	Yes (indicate where provided: section/paragraph)	n/a
Laboratory animals: Provide species, strain, sex, age, genetic modification status. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID	The study was a retrospective study and did not involve laboratory animals.	N/A
Animal observed in or captured from the field: Provide species, sex and age where possible	The study was a retrospective study and did not involve animal observed in or captured from the field.	N/A
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	The study was a retrospective study and did not involve model organisms.	N/A

Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	The study was a retrospective study and did not involve plants.	N/A
Microbes: provide species and strain, unique accession number if available, and source	The study was a retrospective study and did not involve microbes.	N/A

Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Patients and methods (Para 6/line 141-144).	
Provide statement confirming informed consent obtained from study participants.	Patients and methods (Para 6/line 141-144).	
Report on age and sex for all study participants.		N/A

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	Clinical trial registry number (Para 4/line 75-76).	

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	The study was a retrospective study and did not involve laboratory protocol.	N/A

Experimental study design (statistics details)	Yes (indicate where provided: section/paragraph)	n/a
State whether and how the following have been done**, or** if they were not carried out.	Yes.	
Sample size determination	Patients and methods (Para 6/line 123-127).	
Randomisation	The study was a retrospective study.	N/A
Blinding	The study was a retrospective study.	N/A
Inclusion/exclusion criteria	Patients and methods (Para 6/line 123-127).	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	The study was a retrospective study and did not involve experiment in laboratory.	N/A
Define whether data describe technical or biological replicates	The study was a retrospective study and did not involve experiment in laboratory.	N/A

Ethics	Yes (indicate where provided: section/paragraph)	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Reference number for approval (Para 19/line 405-406) Materials and methods (Para 7/ line 141-143).	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The study was a retrospective study and did not involve experimental animals.	N/A
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	The study was a retrospective and did not involve specimen and field samples.	

Dual Use Research of Concern (DURC)	Yes (indicate where provided: section/paragraph)	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval	The study was a retrospective study and was not subject to dual use research.	N/A

Analysis

Attrition	Yes (indicate where provided: section/paragraph)	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.	Criteria for exclusion (Para 6/line 123-137).	N/A

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Patients and methods (Para 7/line 145-153).	

Data Availability	Yes (indicate where provided: section/paragraph)	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Data sharing statement.	
If data are publicly available, provide accession number in repository or DOI or URL.	The data for this study are not publicly available.	N/A
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	The data for this study are not publicly available.	N/A

Code Availability	Yes (indicate where provided: section/paragraph)	n/a
For all newly generated code and software essential for replicating the main findings of the study:	Patients and methods (Para 7/line 146-153).	
State whether the code or software is available.	Patients and methods (Para 7/line 146-153).	
If code is publicly available, provide accession number in repository, or DOI or URL.	Supplementary File S1.	

Reporting

Adherence to community standards	Yes (indicate where provided: section/paragraph)	n/a
MDAR framework recommends adoption of discipline-specific guidelines, established and endorsed through community initiatives. Journals have their own policy about requiring specific guidelines and recommendations to complement MDAR.	Yes.	
State if relevant guidelines (eg., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (eg., CONSORT, PRISMA, ARRIVE) is provided with the manuscript.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication.	

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