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**	**n/a**
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		n/a. No commercial reagents were used in the study.

Cell materials	**Yes (indicate where**	**n/a**
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		n/a. Cells were not used in the study.
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		n/a. Cells were not used in the study.

Experimental animals	**Yes (indicate where**	**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		n/a. No experimental animals were used in the study.
Animal observed in or captured from the field: Provide species, sex and age where possible		n/a. No experimental animals were used in the study.
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		n/a. No experimental animals were used in the study.

Plants and microbes	**Yes (indicate where**	**n/a**
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		n/a. Plants were not involved in the study.
Microbes: provide species and strain, unique accession number if available, and source		n/a. Microbes were not involved in the study.

Human research participants	**Yes (indicate where**	**n/a**
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The last paragraph: **Ethical Statement**	
Provide statement confirming informed consent obtained from study participants.		n/a. With the approval of the ethics committee of our hospital, the informed consent of the patients was exempted.
Report on age and sex for all study participants.	In the first paragraph of **Results** section	

Design

Study protocol	Yes (indicate where	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		n/a. This study is not a clinical trial.

Laboratory protocol	Yes (indicate where	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		n/a. This study does not involve laboratory protocols.

Experimental study design (statistics details)	Yes (indicate where	n/a
State whether and how the following have been done**, or** if they were not carried out.		
Sample size determination		n/a. We included all the samples we could find.
Randomisation		n/a. We included all the samples we could find ,there's no grouping, and no randomization.
Blinding		n/a .We included all the samples we could find ,there's no grouping, and no blinding.
Inclusion/exclusion criteria	In the section of **Inclusion and exclusion criteria section**	

Sample definition and in-laboratory replication	Yes (indicate where	n/a
State number of times the experiment was replicated in laboratory		n/a. We didn't do this.
Define whether data describe technical or biological replicates		n/a. We didn't do this.

Ethics	Yes (indicate where	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The last paragraph:**Ethical Statement section**	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a. No experimental animals were used in the study.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		n/a. This study does not involve l specimen and field samples.

Dual Use Research of Concern (DURC)	Yes (indicate where	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval		n/a.This is not a dual use research.

Analysis

Attrition	Yes (indicate where provided:	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.	In the section of **Inclusion and exclusion criteria section**	

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of tests.	In the section of **Statistical analysis section**	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		n/a. That's not available.
If data are publicly available, provide accession number in repository or DOI or URL.		n/a. That's not publicly date.
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		n/a. That's not publicly date.

Code Availability	Yes (indicate where provided:	n/a
For all newly generated code and software essential for replicating the main findings of the study:		
State whether the code or software is available.		n/a.There are no code and software.
If code is publicly available, provide accession number in repository, or DOI or URL.		n/a.There are no code and software.

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.		
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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