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.	Page5/line139-149 Methods/paragraph5	

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	N/A (Our study only involves human samples and animal samples.)	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	N/A (Our study only involves human samples and animal samples.)	

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	Page4-5/line110-123 Methods/paragraph2	
Animal observed in or captured from the field: Provide species, sex and age where possible	Page4-5/line110-123 Methods/paragraph2	
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	Page4-5/line110-123 Methods/paragraph2	

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)	N/A (Our study only involves human samples and animal samples.)	
Microbes: provide species and strain, unique accession number if available, and source	N/A (Our study only involves human samples and animal samples.)	

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.	This nonrandomized prospective study was performed in accordance with the Declaration of Helsinki and approved by the Ethics Committee of Tianjin First Central Hospital	
Provide statement confirming informed consent obtained from study participants.	All eligible patients were willing to undergo all study procedures and provided written informed consent prior to enrolment.	
Report on age and sex for all study participants.	We included a final cohort of 174 participants (age range 16–79 years; mean age 47.7 years)	

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	N/A (Our study only involves human and animal samples, not clinical trials.)	

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	Page4-7/line100-175 Methods/paragraph1-9	

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.	N/A (Our study only involves human and animal samples, not clinical trials.)	
Sample size determination		
Randomisation		
Blinding		
Inclusion/exclusion criteria		

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Page5-7/line125-175 Methods/paragraph3-9	
Define whether data describe technical or biological replicates	Page5-7/line125-175 Methods/paragraph3-9	

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.	Page11/line298-302 footnote/paragraph2	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Page11/line298-302 footnote/paragraph2	
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 (The Ethics Committee of Tianjin First Central Hospital authorized the study protocol(E2017011L).)	

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	N/A (Our research belongs to clinical study.)	

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.	N/A (All data are included without exclusion)	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Page7/line179-185 Methods/paragraph10	

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.	created datasets are available, including protocols for access or restriction on access.	
If data are publicly available, provide accession number in repository or DOI or URL.	Emails could be sent to the address below to obtain the shared data: niulianjie910107@163.com.	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	Emails could be sent to the address below to obtain the shared data: niulianjie910107@163.com.	

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:		
State whether the code or software is available.	N/A (Our study only involves human and animal samples, not clinical trials.)	
If code is publicly available, provide accession number in repository, or DOI or URL.	N/A (Our study only involves human and animal samples, not clinical trials.)	

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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