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	Yes, the reagents information was provided in the materials parts (paragraph 3).	

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	No cell lines were used in this article.	no
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	No cell lines were used in this article.	no

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	There is no animal experiments in this article.	no
Animal observed in or captured from the field: Provide species, sex and age where possible	There is no animal experiments in this article.	no
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	There is no animal experiments in this article.	no

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)	Plants and microbes were not used.	no
Microbes: provide species and strain, unique accession number if available, and source	Plants and microbes were not used.	no

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.	There are no human research participants.	no
Provide statement confirming informed consent obtained from study participants.	There are no human research participants.	no
Report on age and sex for all study participants.	There are no human research participants.	no

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	There is no clinical trials.	no

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 protocol were provided in the methods part (paragraph 1, 2, 3)	no

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.		
Sample size determination	Methods part (paragraph 14)	
Randomisation	Methods part (paragraph 14)	
Blinding	Methods part (paragraph 14)	
Inclusion/exclusion criteria	Methods part (paragraph 14)	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Three experiments have been conducted.	
Define whether data describe technical or biological replicates	Yes. Please find the technical replicated in the methods part (paragraph 1, 2, 3)	

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.	There are no human participants.	no
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	There are no human participants.	no
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	Yes, all the specimen was from Renji hospital and permission obstained.	

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	There is no dual use research of concern.	no

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.	Yes, The details were decribed in the methods part (paragraph 4)	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	The Wilcoxon signed rank test and Mann-Whitney test were used to investigate the statistical significance of the differences between patients with and without AF for continuous variables. The impact of clinical factors and biomarkers on AF occurrence was evaluated using binary logistic analysis.	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Yes, All the data could be available from the corresponding author	
If data are publicly available, provide accession number in repository or DOI or URL.	The data could be asked from the corresponding author.	no
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	There are no publicly avilable data used in this article.	no

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

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 guidelines for publication.	

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