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:	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		n/a, Not mentioned in the study

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

Experimental animals	Yes (indicate where provided:	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. This study did not involve animal experiments
Animal observed in or captured from the field: Provide species, sex and age where possible		n/a. This study did not involve animal
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		n/a. This study did not involve animal

Plants and microbes	Yes (indicate where provided:	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 this study
Microbes: provide species and strain, unique accession number if available, and source		n/a. Plants were not involved in this study

Human research participants	Yes (indicate where provided:	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Section Methods / Patients /LINE113-114	
Provide statement confirming informed consent obtained from study participants.	Section Methods / Patients /LINE112-113	
Report on age and sex for all study participants.	Section Methods / Patients /LINE102-105	

Design

Study protocol	Yes (indicate where provided:	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 provided:	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		n/a. There is no detailed step-by-step protocols

Experimental study design (statistics details)	Yes (indicate where provided:	n/a
State whether and how the following have been done**, or** if they were not carried out.		
Sample size determination	Section Methods / Patients /LINE102-	
Randomisation		n/a. This study was grouped according to NIHSS score
Blinding	Section Methods / Perfusion-weighted MRI indexes analysis /LINE102-103	
Inclusion/exclusion criteria	Section Methods /LINE116-135	

Sample definition and in-laboratory replication	Yes (indicate where provided:	n/a
State number of times the experiment was replicated in laboratory		n/a. The test indexes of each patient were not repeated
Define whether data describe technical or biological replicates	Section Methods / Assessment of establishment of collateral circulation /LINE167-168	

Ethics	Yes (indicate where provided:	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Section Methods / Patients /LINE113-114	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a. This study does not involve animal experiments
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	Section Methods / Patients /LINE113-114	

Dual Use Research of Concern (DURC)	Yes (indicate where provided:	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 study is not subject to dual use research of concern

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.	Section Methods / Exclusion criteria /LINE125-135	

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of tests.	Section Methods / Statistical analysis/LINE187-199	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Section/Data Sharing Statement/LINE341-342	
If data are publicly available, provide accession number in repository or DOI or URL.	Section/Data Sharing Statement/LINE341-342	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		n/a. This study does not reuse publicly available data

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. This study does not involve code and software
If code is publicly available, provide accession number in repository, or DOI or URL.		n/a. This study does not involve code

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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