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.	SRM: Proteintech,19858; ODC1: Proteintech,17003; SMOX: Proteintech,15052; iNOS: Proteintech,18985; IL-6: Proteintech,21865; GAPDH: Proteintech,60004; NF-κB p65: Cell Signaling Technology, 8242S	

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	THP1: human, monocyte; procell, CL-0233	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	THP1: human, monocyte; procell, CL-0233	

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	N/A (no animal experiments were involved in this study)	
Animal observed in or captured from the field: Provide species, sex and age where possible	N/A (no animal experiments were involved in this study)	
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	N/A (no animal experiments were involved in this study)	

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 (no plant experiments were involved in this study)	
Microbes: provide species and strain, unique accession number if available, and source	N/A (no microbe experiments were involved in this study)	

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.	The study was approved by the Internal Review and Ethics Boards of Dongguan Maternal and Child Health Care Hospital (No. 5641) and Guangzhou First People's Hospital (No. GFPH0787)	
Provide statement confirming informed consent obtained from study participants.	Yes (Materials and Methods/Ethics statement:156)	
Report on age and sex for all study participants.	Yes (Table 1 The demographic and clinical characteristics)	

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 (no clinical trials were involved in this study)	

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	N/A (detailed steps are available in this manuscript)	

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	N/A (no sample size was performed)	
Randomisation	N/A (patient samples were specially collected)	
Blinding	N/A (blinding was not necessary)	
Inclusion/exclusion criteria	Yes (the diagnostic criteria for HFMD disease with EV71 infection set out in the Chinese guidelines for the diagnosis and treatment of HFMD (2018 edition))	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Yes (Materials and Methods/ Statistical Analysis:231)	
Define whether data describe technical or biological replicates	Yes (describe technical and biological replicates)	

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.	The study was approved by the Internal Review and Ethics Boards of Dongguan Maternal and Child Health Care Hospital (No.5641) and Guangzhou First People's Hospital(No. GFPH0787).	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	N/A (no animal experiments were involved in this study)	
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 approved by the Internal Review and Ethics Boards of Dongguan Maternal and Child Health Care Hospital (No.5641) and Guangzhou First People's Hospital(No. GFPH0787), and informed consent was obtained from the parents of each of the enrolled children.	

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 (dual use research of concern is not involved)	

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 (it's not stated in our analysis)	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	The Student's t-test was used to determine statistical differences for the 2-group comparisons and a 1-way analysis of variance was used for the multiple comparisons. The correlations were evaluated using Spearman's rank correlation test.	

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.	N/A (the data were processed and exported)	
If data are publicly available, provide accession number in repository or DOI or URL.	N/A (the data were not publicly available)	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	N/A (no reuse of publicly available data)	

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.	Yes (Materials and Methods/ Statistical Analysis:231)	
If code is publicly available, provide accession number in repository, or DOI or URL.	N/A (no code was involved)	

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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