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.	No antibodies were used in this research	n/a

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 materials were used in this research	n/a
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	No cell materials were used in this research	n/a

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

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)	No plats or microbes were used in this research	n/a
Microbes: provide species and strain, unique accession number if available, and source	No plats or microbes were used in this research	n/a

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.	Methods, Page 4, line 87. IRB approval was granted for the use of anonymized patient data.	
Provide statement confirming informed consent obtained from study participants.	Methods, Page 4, line 88. Consent was not needed due to files being anonymized and accessed retrospectively	
Report on age and sex for all study participants.	This study did not involve human research participants	n/a

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	This was not a clinical trial	n/a

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	A specific laboratory was not used for this research study	n/a

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	The number of cases included was determined on availability	n/a
Randomization	This was not performed to observe differences between specific methods	n/a
Blinding	There was no blinding of the models to assign correct values to the respective models	n/a
Inclusion/exclusion criteria	Methods, page 5. Included models were representative of different acetabular fracture types, and only this type of model was considered	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	The study was not replicated	n/a
Define whether data describe technical or biological replicates	The study was not replicated	n/a

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.	Footnote, Page 16, Line 346. The study involved human derived information that was anonymized, therefore did not require consent. IRB approval was obtained to perform the study.	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	This study did not use animals.	n/a
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	This study did not use specimen or field samples.	n/a

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	The study is not subject to dual use	n/a

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.	There was no attrition of participants in this study	n/a

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Methods, page 8, line 166.	

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.	Data for this study can be made available upon request from the corresponding author	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	Data for this study can be made available upon request from the corresponding author	n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	Data for this study can be made available upon request from the corresponding author	n/a

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.	The code used to analyze this data can be made available upon request	n/a
If code is publicly available, provide accession number in repository, or DOI or URL.	The code used to analyze this data can be made available upon request	n/a

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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