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** No commercial reagents were used in the paper.

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** This paper does not cover the relevant content.
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		**n/a** This paper does not cover the relevant content.

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

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** No plants were involved in the experiment.
Microbes: provide species and strain, unique accession number if available, and source		**n/a** No microbes were involved in the experiment.

Human research participants	Yes (indicate where provided:	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		**n/a** The paper is a retrospective human research. Only the Patients CT images were involved.
Provide statement confirming informed consent obtained from study participants.		**n/a** The paper is a retrospective human research. Only the Patients CT images were involved.
Report on age and sex for all study participants.	**Yes** Details are provided in section Methods, paragraph 1.	

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 paper is not a clinical trials.

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 laboratory protocol in this paper.

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	**Yes** Details are provided in section Methods, paragraph 1.	
Randomisation	**Yes** Details are provided in section Methods, paragraph 1.	
Blinding		**n/a** There is no blinding design in this paper.
Inclusion/exclusion criteria	**Yes** Details are provided in section Methods (Clinical data and the design of the radiotherapy plan), paragraph 1.	

Sample definition and in-laboratory replication	Yes (indicate where provided:	n/a
State number of times the experiment was replicated in laboratory	**Yes** Details are provided in section Methods (Experimental design and gamma analysis), paragraph 1.	
Define whether data describe technical or biological replicates	**Yes** Data describe technical. Details are provided in section Methods (Experimental design and gamma analysis), paragraph 1-2.	

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.		**n/a** The paper is a retrospective human research. Only the Patients CT images were involved.
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		**n/a** No experimental animals were involved in the study.
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** No specimen and field samples were involved in the study.

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 does not cover the relevant content of Dual Use Research.

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** Details are provided in section Methods (Clinical data and the design of the radiotherapy plan), paragraph 1.	

Statistics	Yes (indicate where provided:	n/a
Describe statistical tests used and justify choice of tests.	**Yes** Details are provided in section Methods (Statistical analysis), paragraph 6.	

Data Availability	Yes (indicate where provided:	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		**n/a** Newly created datasets are not available.
If data are publicly available, provide accession number in repository or DOI or URL.		**n/a** The data are not publicly available because of patient privacy.
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		**n/a** The data are not publicly available because of patient privacy.

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.	**Yes** The Gamma analysis software is available. Details are provided in section Methods (Experimental design and gamma analysis), paragraph 2.	
If code is publicly available, provide accession number in repository, or DOI or URL.		**n/a** Code is publicly available.

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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