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	~~)~~	
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	There are no antibodies or other commercial reagents used in this study	**n/a**

Cell materials		
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID	There are no cell lines or cultures used in this study	**n/a**
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	There are no cell lines or cultures used in this study	**n/a**

Experimental animals		
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 are no laboratory animals or model organisms used in this study	**n/a**
Animal observed in or captured from the field: Provide species, sex and age where possible	There are no laboratory animals or model organisms used in this study	**n/a**
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	There are no laboratory animals or model organisms used in this study	**n/a**

Plants and microbes		
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)	There are no plants or microbes used in this study	**n/a**
Microbes: provide species and strain, unique accession number if available, and source	There are no plants or microbes used in this study	**n/a**

Human research participants	**Yes**	
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The study was approved by the local ethics committee (protocol number 2018-506-f-S). **(LINE 32-33)**	
Provide statement confirming informed consent obtained from study participants.	Due to the retrospective character of the study informed consent was waived by the institutional review board. **(LINE 33-35)**	
Report on age and sex for all study participants.	Between April 2015 and March 2018, a total of 84 patients underwent surgical treatment of type A aortic dissection (AADA). In these patients, 21 underwent surgical repair using the Thoraflex™ Hybrid Plexus 4 (Vascutek, Terumo Aortic, Scotland). 30-day-mortality was 4,8%. From the remaining, 18 male and two female patients (mean age 57 ± 17 years old) with Thoraflex™ Hybrid Plexus were included. **(LINE 35-39)**	

Design

Study protocol		
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	This was a retrospective study, trial registration is not applicable.	**n/a**

Laboratory protocol		
Provide DOI or other citation details if detailed step-by-step protocols are available.	As there were no laboratory tests, this is not applicable to our study.	**n/a**

Experimental study design (statistics details)	**Yes**	
State whether and how the following have been done**, or** if they were not carried out.	All data are expressed as n (%) or mean + standard deviation. IBM SPSS Statistics for Windows, Version 22 (Armonk, NY, IBM Corp) was used for statistical analysis. The Kolmogornov-Smirnov-test was applied to test the equality of continuous variables for TL and FL at the respective times of measurement (i.e. preoperative, at discharge and 12 months and 24 months after discharge). Within the groups (TL and FL) the one-way analysis of variance (ANOVA) was used to extrapolate significance. Tukey post-hoc analysis and Bonferroni correction was applied to compare means at the baseline, discharge and at one and two years follow up. Significance was set at $p < .05$.	
Sample size determination	a total of 84 patients underwent surgical treatment of type A aortic dissection (AADA) between April 2015 and march 2018. In these patients, 21 underwent surgical repair using the Thoraflex™ Hybrid Plexus 4 (Vascutek, Terumo Aortic, Scotland). All of these patients have been included. 30-day-mortality was 4,8%. From the remaining, 18 male and two female patients (mean age 57 ± 17 years old) with Thoraflex™ Hybrid Plexus were included.	
Randomisation	Randomisation was not necessary.	**n/a**
Blinding	Blinding was not performed.	**n/a**
Inclusion/exclusion criteria	18 male and two female patients (mean age 57 ± 17 years old) with Thoraflex™ Hybrid Plexus were included. Patients with other forms of surgery for AADA have been excluded.	

Sample definition and in-laboratory replication		
State number of times the experiment was replicated in laboratory	The measurments were performed only once for each patient sample.	**n/a**
Define whether data describe technical or biological replicates	The data do not describe technical replicates.	**n/a**

Ethics	**Yes**	
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 local ethics committee (protocol number 2018-506-f-S). **(LINE 32-33)**	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	The study does not involve experimental 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.	The study does not involve specimens nor field samples.	**n/a**

Dual Use Research of Concern (DURC)		
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval	This study is not subject to dual use research.	**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.		n/a

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Yes, statistics	

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
If data are publicly available, provide accession number in repository or DOI or URL.		n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		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.		n/a
If code is publicly available, provide accession number in repository, or DOI or URL.		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.		n/a
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.	n/a

Article information: http://dx.doi.org/10.21037/jtd-20-2356