NOTE: Please save this file locally before filling in the table, DO NOT work on the file within your internet browser as changes will not be saved. Adobe Acrobat Reader (available free here) is recommended for completion.

The ARRIVE guidelines 2.0: author checklist

The ARRIVE Essential 10

These items are the basic minimum to include in a manuscript. Without this information, readers and reviewers cannot assess the reliability of the findings.

Item		Recommendation	Section/line number, or reason for not reporting
Study design	1	For each experiment, provide brief details of study design including: a. The groups being compared, including control groups. If no control group has been used, the rationale should be stated. b. The experimental unit (e.g. a single animal, litter, or cage of animals).	Section 2.1：The control mice received an equal volume of saline (vehicle) via intraperitoneal injection and were not given LPS or XML Section 2.1: The experimental unit is a single mouse
Sample size	2	a. Specify the exact number of experimental units allocated to each group, and the total number in each experiment. Also indicate the total number of animals used. b. Explain how the sample size was decided. Provide details of any *a priori* sample size calculation, if done.	Section 2.1 (and figure legends): Survival experiment : 20 mice per group, total 60. Section 2.1 :A formal a priori sample size calculation was not performed. Ten additional mouse per group was included to account for potential death。
Inclusion and exclusion criteria	3	a. Describe any criteria used for including and excluding animals (or experimental units) during the experiment, and data points during the analysis. Specify if these criteria were established *a priori.* If no criteria were set, state this explicitly. b. For each experimental group, report any animals, experimental units or data points not included in the analysis and explain why. If there were no exclusions, state so. c. For each analysis, report the exact value of *n* in each experimental group.	Section 2.1: No a priori inclusion or exclusion criteria were established for animals or data points. All surviving animals were included in the analyses, and no data points were excluded. Section 2.1: No animals, experimental units, or data points were excluded from any experimental group. All collected data were included in the analysis. Section 3.1 n = 8
Randomisation	4	a. State whether randomisation was used to allocate experimental units to control and treatment groups. If done, provide the method used to generate the randomisation sequence. b. Describe the strategy used to minimise potential confounders such as the order of treatments and measurements, or animal/cage location. If confounders were not controlled, state this explicitly.	Section 2.1: Mice were randomly assigned to groups using a computer generated random number table. Section 2.1:Mice were housed in mixed groups across cages, and the order of treatments and measurements was randomised across cages on each experimental day, with all assessments performed by blinded investigators.
Blinding	5	Describe who was aware of the group allocation at the different stages of the experiment (during the allocation, the conduct of the experiment, the outcome assessment, and the data analysis).	Section 2.1:All outcome measurements (echocardiography, histopathological scoring, survival monitoring) were performed by investigators blinded to group allocation.
Outcome measures	6	a. Clearly define all outcome measures assessed (e.g. cell death, molecular markers, or behavioural changes). b. For hypothesis-testing studies, specify the primary outcome measure, i.e. the outcome measure that was used to determine the sample size.	Section 3.1 3.2 3.3,LVEF and LVFS measured by echocardiography and histopathological changes in myocardial tissue fig 1.Survival rate, Left ventricular ejection fraction, Myocardial injury
Statistical methods	7	a. Provide details of the statistical methods used for each analysis, including software used. b. Describe any methods used to assess whether the data met the assumptions of the statistical approach, and what was done if the assumptions were not met.	Section 2.11: One way ANOVA with Tukey s post hoc test for multiple-group comparisons. Section 2.11: the data met the assumptions of the statistical approach
Experimental animals	8	a. Provide species-appropriate details of the animals used, including species, strain and substrain, sex, age or developmental stage, and, if relevant, weight. b. Provide further relevant information on the provenance of animals, health/immune status, genetic modification status, genotype, and any previous procedures.	Section 2.1: Eight to ten week old male C57BL/6 mice. Section 2.1: Purchased from Hunan SJA Laboratory Animal Company (certification: SCXK 2019?0004).Housed under standard conditions (23 ± 2 °C, 12?h light/dark cycle) with free access to food and water
Experimental procedures	9	For each experimental group, including controls, describe the procedures in enough detail to allow others to replicate them, including: a. What was done, how it was done and what was used. b. When and how often. c. Where (including detail of any acclimatisation periods). d. Why (provide rationale for procedures).	Section 2.1: LPS (10 mg/kg, i.p.) or XML (50 mg/kg, i.p.) was given 6 h apart; echocardiography and H&E staining were performed at 24 h post-LPS. Section 2.1: XML and LPS were each given once; survival was monitored at 3, 6, 12, 24, 36, 48, 72 h; echocardiography and tissue collection were done at 24 h. Section 2.1: All procedures were performed in the animal facility of Hunan Provincial People's Hospital after 7 days of acclimatisation. Section 2.1: LPS dose (10 mg/kg) was based on ublished sepsis models; XML dose (50 mg/kg) was converted from clinical dose (5 mg/kg) by allometric scaling; 6 h pretreatment and 24 h endpoint were base
Results	10	For each experiment conducted, including independent replications, report: a. Summary/descriptive statistics for each experimental group, with a measure of variability where applicable (e.g. mean and SD, or median and range). b. If applicable, the effect size with a confidence interval.	Section 2.11:All data are presented as mean ± SD from at least three independent experiments Section 2.11:Effect sizes with 95% CIs are reported in the figure legends for all key comparisons