

Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our [Editorial Policies](#) and the [Editorial Policy Checklist](#).

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

- | | |
|-------------------------------------|--|
| n/a | Confirmed |
| ☐ | ☒ The exact sample size (<i>n</i>) for each experimental group/condition, given as a discrete number and unit of measurement |
| ☒ | ☐ A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly |
| ☐ | ☒ The statistical test(s) used AND whether they are one- or two-sided
<i>Only common tests should be described solely by name; describe more complex techniques in the Methods section.</i> |
| ☒ | ☐ A description of all covariates tested |
| ☐ | ☒ A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons |
| ☐ | ☒ A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals) |
| ☐ | ☒ For null hypothesis testing, the test statistic (e.g. <i>F</i> , <i>t</i> , <i>r</i>) with confidence intervals, effect sizes, degrees of freedom and <i>P</i> value noted
<i>Give P values as exact values whenever suitable.</i> |
| ☒ | ☐ For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings |
| ☐ | ☒ For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes |
| ☐ | ☒ Estimates of effect sizes (e.g. Cohen's <i>d</i> , Pearson's <i>r</i>), indicating how they were calculated |

Our web collection on [statistics for biologists](#) contains articles on many of the points above.

Software and code

Policy information about [availability of computer code](#)

Data collection All data used to produce this study was gathered from published studies. The key terms and search strategies built to retrieve studies are available in Supplementary Table 1. The list of included studies is available in Table 1. No software was used.

Data analysis All statistical analyses and tests were performed by STATA 17.0 (StataCorp, College Station, TX).

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

- All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:
- Accession codes, unique identifiers, or web links for publicly available datasets
 - A description of any restrictions on data availability
 - For clinical datasets or third party data, please ensure that the statement adheres to our [policy](#)

All data used to produce this study was gathered from published studies. The key terms and search strategies built to retrieve studies are available in Supplementary Table 1. The list of included studies is available in Table 1. Source data for the main statistical analysis are available in Supplementary Data 1. All other relevant data that support the findings of the study are available from the corresponding author upon reasonable request.

Research involving human participants, their data, or biological material

Policy information about studies with [human participants or human data](#). See also policy information about [sex, gender \(identity/presentation\), and sexual orientation](#) and [race, ethnicity and racism](#).

Reporting on sex and gender	This study synthesized previous evidence from 25 studies to systematically analyze the correlations between patient-related factors and AMI-CS. Therefore, there is no need to report sex and gender.
Reporting on race, ethnicity, or other socially relevant groupings	In this systematic review, we reported the characteristics of included studies instead of specific human participants. There were 12 cross-sectional, ten retrospective cohort, and three case-control studies, among which ten studies were from North America, 13 studies from Europe, one study from Asia, and one study were from multiple continents involving North America, South America, Europe, and Oceania. A total of 19 studies were considered to be high-quality, and 6 studies were moderate-quality.
Population characteristics	See above.
Recruitment	This study did not include human participants.
Ethics oversight	This study did not include human participants and ethic approval was not applicable.

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☐ Life sciences ☒ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see nature.com/documents/nr-reporting-summary-flat.pdf

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	Systematic review and meta-analysis
Research sample	Patients were diagnosed with AMI complicating CS (ICD-9-CM codes or ICD-10-CM codes), including those with CS on admission or developed CS subsequently during hospitalization. AMI could be ST-segment elevation myocardial infarction (STEMI), non-ST segment elevation myocardial infarction (NSTEMI), and unstable angina (UA).
Sampling strategy	Studies included in this meta-analysis should meet the following eligibility criteria: (1) original articles, including observational studies (e.g., cross-sectional, cohort and case-control studies)-, or experimental studies (e.g., randomized controlled study, RCT); (2) studies investigating the risk factors of AMI-CS occurrence and mortality; (3) studies reporting estimates of odds ratio (OR), relative ratio (RR), or hazard ratio (HR) with their corresponding 95% confidence interval (CI); (4) published in the English language.
Data collection	A systematic search of PubMed and Embase was performed to identify all the related studies published prior to November 23, 2022. The following keywords and/or corresponding medical subject heading terms were used: acute myocardial infarction; cardiogenic shock; prevalence; incidence; epidemiology; and risk factor. Disagreements were resolved by reaching a consensus, and a third reviewer was consulted if necessary. The details for search strategies of databases can be found in Supplementary Table 1.
Timing	prior to November 23, 2022
Data exclusions	No data was excluded from this current study.
Non-participation	No participants were dropped out.
Randomization	Participants were not allocated to an experimental group.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involved in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☒	☐ Clinical data
☒	☐ Dual use research of concern
☒	☐ Plants

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging

Plants

Seed stocks

Report on the source of all seed stocks or other plant material used. If applicable, state the seed stock centre and catalogue number. If plant specimens were collected from the field, describe the collection location, date and sampling procedures.

Novel plant genotypes

Describe the methods by which all novel plant genotypes were produced. This includes those generated by transgenic approaches, gene editing, chemical/radiation-based mutagenesis and hybridization. For transgenic lines, describe the transformation method, the number of independent lines analyzed and the generation upon which experiments were performed. For gene-edited lines, describe the editor used, the endogenous sequence targeted for editing, the targeting guide RNA sequence (if applicable) and how the editor was applied.

Authentication

Describe any authentication procedures for each seed stock used or novel genotype generated. Describe any experiments used to assess the effect of a mutation and, where applicable, how potential secondary effects (e.g. second site T-DNA insertions, mosaicism, off-target gene editing) were examined.