INPLASY PROTOCOL

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Support: **No**

Review Stage at time of this submission: **Formal screening of search results against eligibility criteria.**

Conflicts of interest:
No potential conflict of interest relevant to this article.

Meta-analysis of factors predicting Kawasaki disease shock syndrome

ming, li[1]; zhu, lin[2]; tong, ke[3]; yu, gengsheng[4].

Review question / Objective: **What are the risk factors for kawasaki shock syndrome? We can predict the possibility of kawasaki shock syndrome in some children with kawasaki disease by some laboratory indicators.**
Condition being studied: **(1) case control study; (2) the case group was KDSS children; The control group was hemodynamically stable children with KD. (3) exposure factors: laboratory indicators include: white blood cell count (WBC), neutrophil percentage, c-reactive protein (CRP), erythrocyte sedimentation rate (ESR), hemoglobin (Hb), platelet count (PLT), alanine aminotransferase (ALT), serum albumin (propagated), concentration of serum sodium (Na), N terminal brain natriuretic peptide precursor (NT - proBNP), troponin (TP).**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 09 April 2020 and was last updated on 09 April 2020 (registration number INPLASY202040045).

INTRODUCTION

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(PLT), alanine aminotransferase (ALT), serum albumin (propagated), concentration of serum sodium (Na), N terminal brain natriuretic peptide precursor (NT - proBNP), troponin (TP).

METHODS

Search strategy: "((KDSS[Title/Abstract]) OR Kawasaki* shock syndrome[Title/Abstract]) OR ((((((mucocutaneous lymph node syndrome[Title/Abstract]) OR Kawasaki*[Title/Abstract])) OR "Mucocutaneous Lymph Node Syndrome"[Mesh])) AND (("Shock"[Mesh]) OR ((((Shock[Title/Abstract]) OR Circultory Failure [Title/Abstract]) OR Circulatory Collapse [Title/Abstract]) OR Hypovolemic Shock [Title/Abstract]))))".

Participant or population: Children with Kawasaki diseases (as diagnosed using any diagnostic criteria of Japan Kawasaki diseases Research Committee (4 th or 5 th revised edition)/American Heart Association (2001, 2004 or 2007 edition). The diagnostic criteria of KDSS are: on the basis of KD diagnosis, systolic blood pressure is consistently lower than 20% or more of the low value of normal systolic blood pressure in this age group, or clinical manifestations of combined tissue hypoperfusion are found, and volume dilation or vasoactive drugs are needed to maintain blood pressure in the normal range.

Intervention: Risk factors of Kawasaki disease shock syndrome.

Comparator: Hemodynamically stable children with kawasaki disease.

Study designs to be included: case-control study.

Eligibility criteria: The case group was KDSS children; The control group was hemodynamically stable children with KD.

Information sources: We searched PubMed, EMbase, Web of science, ProQuest, WanFang Data, CBM, VIP and CNKI databases by computer, and the retrieval period was from establishment to March 2020.

Main outcome(s): Laboratory indicators include: white blood cell count (WBC), neutrophil percentage, c-reactive protein (CRP), erythrocyte sedimentation rate (ESR), hemoglobin (Hb), platelet count (PLT), alanine aminotransferase (ALT), serum albumin (propagated), concentration of serum sodium (Na), N terminal brain natriuretic peptide precursor (NT - proBNP), troponin (TP).

Quality assessment / Risk of bias analysis: Two review authors will independently assess the risk of bias basing on the e Newcastle-Ottawa Scale (NOS).Disagreements between the review authors over the risk of bias in particular studies will be resolved by discussion, with involvement of a third review author where necessary.

Strategy of data synthesis: The odds ratio (OR), standard mean difference (SMD) and 95% confidence interval (CI) were used as the effect indexes for the counting data and measurement data, respectively. The heterogeneity among the included results was analyzed using Q test, and the heterogeneity was quantitatively determined by combining with I2. When there was significant statistical heterogeneity among the studies ($P < 0.1$, $I2 > 50\%$), the combined effect size of the random effect model was adopted, whereas the fixed effect model was adopted. Sensitivity analysis was used to determine the stability and reliability of the combined effect quantity.

Subgroup analysis: When it is available,we will take an analysis of subgroup according to characteristic of participants,such as race,study location and age.

Sensibility analysis: Sensitivity analysis was performed by changing the statistical analysis model.

Country(ies) involved: China.

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Keywords: Kawasaki shock syndrome; Laboratory inspection; System evaluation; Meta analysis.

Contributions of each author:

Author 1 - The author was responsible for document retrieval, risk bias assessment, data extraction and processing, and manuscript writing.

Author 2 - The author has contributed to literature retrieval and risk assessment of bias.

Author 3 - The author contributed to the data extraction aspect.

Author 4 - The author read, provided feedback and approved the final manuscript.

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