

INPLASY PROTOCOL

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submission:** Formal
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Conflicts of interest:
None declared.

INTRODUCTION

Review question / Objective: KD is a systemic vasculitis disease, and early effective intervention would reduce the occurrence of CAL. Recently, many scholars have been committed to studying

Diagnostic Significance of Noncoding RNAs in Kawasaki Disease: A Systematic Review and Meta-Analysis

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Condition being studied: Kawasaki disease (KD) is an acute, self-limited febrile illness of unknown cause that mainly affects children <5 years old and is the most common cause of acquired heart disease in children. We collected all published case-control studies to explore the diagnostic accuracy of the ncRNAs for distinguishing different KD statuses, including differentiating KD-CAL from KD-NCAL, the acute phase of KD from convalescent KD patients, IVIG-resistant KD from IVIG-responsive KD and the diagnostic accuracy of miRNAs combined with other clinical laboratory tests in KD.

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METHODS

Search strategy: We searched for the diagnostic values of noncoding RNAs in KD in CNKI, VIP, Wanfang, China Biomedical Literature Database as well as PubMed, Web of Science, Embase, and Cochrane Library up to April 15, 2022. The following search terms were used: (1) “Kawasaki disease” or “mucocutaneous lymph node syndrome”; (2) “non-coding RNA” or “noncoding RNA” or “ncRNA” or “miRNA”, “microRNA” or “siRNA” or “snoRNA” or “circRNA” or “lncRNA” or “RNA”. These search terms were combined using the conjunction “and” without language restrictions.

Participant or population: Kawasaki disease patients.

Intervention: ncRNAs.

Comparator: clinical manifestations and clinical laboratory tests laboratory indexes.

Study designs to be included: diagnostic accuracy studies.

Eligibility criteria: (1) Studies about the diagnostic performance of ncRNAs in KD patients. (2) All patients were diagnosed with consistent KD criteria.

Information sources: The PubMed, Web of Science, Embase and Cochrane Library databases, CNKI, VIP, China Biology

Medicine disc databases and Wanfang databases.

Main outcome(s): AUC, sensitivity, specificity.

Quality assessment / Risk of bias analysis: The QUADAS-2 assessment tool.

Strategy of data synthesis: The Cochran’s Q test and the I² test were used to evaluate the heterogeneity among the included studies. If significant heterogeneity existed (I² > 50%), then the random effects model was used; otherwise, the fixed effects model was used to calculate the results.

Subgroup analysis: None.

Sensitivity analysis: If significant heterogeneity was identified, sensitivity analysis was performed to detect whether a single study had significantly affected the pooled results by removing one study in each turn. A

Language restriction: None.

Country(ies) involved: China.

Keywords: noncoding RNA, Kawasaki disease, diagnosis, biomarker, meta-analysis.

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