INPLASY

Corresponding author:
Xueya Han

1945056023@qq.com

Author Affiliation:
Tianjin First Central Hospital.

Prognostic significance of GATA2 in patients with myelodysplastic syndromes/ acute myeloid leukemia: A systematic review and meta-analysis

Han, XY; Liu, W; Kang, ZY; Li, DH.

ADMINISTRATIVE INFORMATION

Support - No funding.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202440049

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 April 2024 and was last updated on 10 April 2024.

INTRODUCTION

Review question / Objective GATA2 mutations has an impact on prognosis in myelodysplastic syndrome/acute myeloid leukemia patients; The research method was a case-control study.

Condition being studied Two independent reviewers perform a systematic literature search.

METHODS

Participant or population Myelodysplastic syndromes or acute myeloid leukemia patients with or without GATA2 mutations.

Intervention No intervention.

Comparator Myelodysplastic syndromes or acute myeloid leukemia patients without GATA2 mutationshave no GATA2 mutations.

Study designs to be included Case-control.

Eligibility criteria Trials were included in this meta-analysis if they met all the following criteria: (1) assessed the prognostic impact of GATA2 mutation and expression in MDS/AML patients; (2) provided detailed survival information of patients with GATA2 mutation and expression, including the number of surviving patients after diagnosis or a clear survival curve or corresponding hazard rations (HRs), 95% confidence intervals (CIs) and P-values; and (3) the study was published as a full article in English. Abstract, review articles, laboratory studies, letters to the editor, animal studies, case reports, duplicate publications, and studies with insufficient data were excluded from the analysis.

Information sources PubMed, Embase, the Cochrane Library databases, and the Web of Science.

Main outcome(s) Overall Survival.

Quality assessment / Risk of bias analysis The quality of the included literature was evaluated by Newcastle–Ottawa quality assessment (NOS). This

included 8 items categorized into three major categories: four items for selection, three items for outcome, and two items for comparability, with a total score of 9. We considered the overall quality score of 6 or more in the included study to be enough for meta-analysis.

Strategy of data synthesis Reviewer Manager Ver5.4 software, the heterogeneity of these studies was evaluated by the χ2 based Q-test with a significance level at P50% or P<0.10) was observed; otherwise, a fixed-effect model (the Mantel-Haenszel method) was used for the meta-analysis.

Subgroup analysis If there is a large difference in literature inclusion, subgroup analysis performed based on GATA2 mutation site.

Sensitivity analysis Sensitivity analysis was performed in the Reviewer Manager Ver5.4 software, and the effect of deleting a certain article on the overall prognosis was used to reflect the sensitivity of the article.

Country(ies) involved China.

Keywords GATA2 mutations, myelodysplastic syndrome, acute myeloid leukemia.

Contributions of each author
Author 1 - Xueya Han.
Email: 1945056023@qq.com
Author 2 - Liu wei.
Email: liuwei2024@126.com
Author 3 - Kang zhongyu.
Author 4 - Daihong Li.
Email: ldh_hla@126.com