INPLASY PROTOCOL

A meta-analysis of glutamine supplementation in adult burn patients

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Review question / Objective: Therefore, we sought to build on previous studies and include newly published RCTs to test the hypothesis that using GLN in burn patients improves important clinical outcomes for patients compared to controls.


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INTRODUCTION

Review question / Objective: Therefore, we sought to build on previous studies and include newly published RCTs to test the hypothesis that using GLN in burn patients improves important clinical outcomes for patients compared to controls.

Condition being studied: Glutamine supplementation in adult burn patients. The research team comes from the Department of Critical Care Medicine of a tertiary hospital in China, and all the team members have perfect clinical experience in treatments of nebulized antibiotics. Moreover, our team members have
published more than 20 meta-analyses, which can guarantee the successful completion of the current research.

METHODS

Participant or population: Adult (≥18 years old) burn patients.

Intervention: Either enteral or parenteral administration of GLN.

Comparator: standard care or a predefined “control group.”

Study designs to be included: RCTs.


Information sources: Articles available only in abstract form or meeting reports were also excluded.

Main outcome(s): Mortality.

Quality assessment / Risk of bias analysis: We evaluated potential evidence of bias using the Cochrane risk-of-bias tool for RCTs. We assigned a value of high, unclear, low to the following items:(1) sequence generation;(2) allocation concealment;(3) blinding;(4) incomplete outcome data;(5) selective outcome reporting; and (6) other sources of bias.

Strategy of data synthesis: An overall effect estimate for all data as risk ratio (RR)/mean difference (MD) with 95% CI will be calculated. The presence of statistical heterogeneity among the studies by using the Q statistics and the heterogeneity by using the I2 statistic was addressed. A p value of less than 0.10 or an I2 value of greater than 50% as indicative was considered of substantial heterogeneity. A random-effects model or a fixed-effects model (DerSimonian-Laird) will be chosen when significant heterogeneity or nonsignificant heterogeneity was not observed, respectively.

Subgroup analysis: We grouped the included studies by route of administration of GLN for subgroup analysis in enteral (EN) and intravenous (IV).

Sensitivity analysis: None.

Country(ies) involved: China.

Keywords: glutamine, burn, enteral administration, meta-analysis, mortality.

Contributions of each author: Author 1 - Wen-He Zheng. Author 2 - Yan Yao. Author 3 - Hui-Bin Huang.