INTRODUCTION

Review question / Objective: The objective of the present review is to find out whether vitamin D could be effective on patients with sepsis.

Condition being studied: Sepsis.

METHODS

Search strategy: (vitamin D[Title/Abstract] OR cholecalciferol[Title/Abstract] OR calcitriol[Title/Abstract] OR alfacalcidol[Title/Abstract]) AND (sepsis[Title/Abstract]).
Participant or population: Patients with sepsis.

Intervention: Vitamin D.

Comparator: Placebo.

Study designs to be included: RCTs.

Eligibility criteria: (1) randomized control trial; (2) examined vitamin D supplements in patients with sepsis; (3) the odds ratios (ORs) or hazard ratios (HRs) of mortality were compared between vitamin D supplements and no vitamin D supplements.


Main outcome(s): Mortality.

Additional outcome(s): Concentration of serum vitamin D, TNF-α, IL-6.

Quality assessment / Risk of bias analysis: Review Manager software (version 5.4; Cochrane Collaboration, Oxford, UK) was used to estimate the risks of bias of the included studies, analyze data, and create plots.

Strategy of data synthesis: I² and χ² tests were used to estimate the heterogeneity. If P>0.1 or I² <40%, a fixed effects model was used for the analysis. If there was a high degree of heterogeneity, a random effects analysis was used. Odds ratios (ORs) were calculated for dichotomous variables.

Subgroup analysis: No subgroup analysis.

Sensitivity analysis: The sensitivity analysis and publication bias test were performed using R language if enough original studies were included.

Language: English and Chinese.

Country(ies) involved: China.

Keywords: vitamin D, cholecalciferol, calcitriol, alfacalcidol, sepsis.

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