INPLASY

Effects of Melatonin on the Prevention of Delirium in Hospitalized Older Patients

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 July 2024 and was last updated on 11 July 2024.

INTRODUCTION

Review question / Objective Melatonin has been demonstrated to exert a preventive effect on delirium. We sought to investigate the preventive effects of melatonin and melatonin receptor agonists on delirium in hospitalized elderly patients.We sought to conduct a systematic review and meta-analysis to evaluate the efficacy and safety of dexmedetomidine for delirium prevention in adult patients following cardiac surgery.

Condition being studied Delirium incidence and mortality.

METHODS

Participant or population Elderly inpatients (aged 60 and above).

Intervention Melatonin or melatonin receptor agonists.

Comparator Placebo.

Study designs to be included The search strategy was RCTs.

Eligibility criteria Elderly hospitalized patients; Use of melatonin (melatonin receptor agonist) or placebo; Outcome measures included incidence of delirium, length of hospital stay, or mortality.

Information sources We will search the references in the included trials and personal files. We will request advice from experts in the field. In addition, we will search associated articles from meetings, and contacted the authors of included trials, if need.

Main outcome(s) Incidence of delirium, length of hospital stay, and mortality.

Quality assessment / Risk of bias analysis We evaluated the methodological quality of the individual studies using the Cochrane risk of bias tool for RCTs.

Strategy of data synthesis The outcome measures included the incidence of delirium, length of hospital stay, and mortality. The estimates are expressed as odds ratio (OR) or mean difference (MD) with a 95% confidence interval (CI).

Subgroup analysis In analyzing the risk of preventing delirium in elderly hospitalized patients, subgroup analyses included non-surgical and surgical patients, melatonin and melatonin receptor agonists.

Sensitivity analysis We conducted sensitivity analyses to investigate the influence of a single study on the overall pooled estimate of each predefined outcome.

Country(ies) involved China.

Keywords Melatonin; Delirium; Older Patients.

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