INPLASY PROTOCOL

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Review Stage at time of this submission: Formal screening of search results against eligibility criteria.

Conflicts of interest:
None declared.

The effect of fish oil-containing lipid emulsions on preventing cholestasis associated with parenteral nutrition in very low birth weight infants: a meta-analysis

Zou, TT[1]; Li, JR[2]; Zhu, Y[3]; Wan, CM[4].

Review question / Objective: To identify the effect of fish oil-containing lipid emulsions on preventing parenteral nutrition associated cholestasis in very low birth weight neonates.

Condition being studied: The effect of fish oil-containing lipid emulsions on preventing parenteral nutrition associated cholestasis in very low birth weight neonates is remaining to know. Thus, we conducted a meta-analysis to identify the prevention effect in very low birth weight neonates.

Eligibility criteria: Inclusion criteria were: 1) the patients were neonates with birth weight less than 1500g or gestational age less than 32 weeks; 2) the intervention was fish oil containing emulsions administrated by parental nutrition; 3) the parental nutrition beginning within 24 hours after birth and lasting at least 1 week; 4) the observation outcome included the number of patients with cholestasis; 5) study design was randomized controlled trial.Exclusion criteria were: 1) observational studies; 2) patients with metabolic disorders, congenital infection, congenital abnormality, severe sepsis or post-surgery; 3) studies lack of initial clinical data; 4) the birth weight or gestational age was not clear. Observational studies; studies lack of initial clinical data.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 November 2021 and was last updated on 14 November 2021 (registration number INPLASY2021110046).

INTRODUCTION

Review question / Objective: To identify the effect of fish oil-containing lipid emulsions on preventing parenteral nutrition associated cholestasis in very low birth weight neonates.

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parenteral nutrition associated cholestasis in very low birth weight neonates is remaining to know. Thus, we conducted a meta-analysis to identify the prevention effect in very low birth weight neonates.

METHODS

Participant or population: Neonates with birth weight less than 1500g or gestational age less than 32 weeks.

Intervention: Fish-oil containing lipid emulsions administrated by parental nutrition.

Comparator: Plant-oil lipid emulsions.

Study designs to be included: randomized controlled trial.

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Information sources: Electronic databases, trial registers

Main outcome(s): The occurrence of cholestasis associated with parenteral nutrition.

Quality assessment / Risk of bias analysis: Cochrane Risk of Bias tool for randomized controlled trials.

Strategy of data synthesis: Review Manager 5.3 was used to analyze the results.

Subgroup analysis: Subgroup analysis base on parental nutrition duration and median birth weight will be performed to analyze the source of heterogeneity.

Sensitivity analysis: Sensitivity analysis will be performed by removing each study.

Language: English.

Country(ies) involved: China.

Keywords: fish oil, lipid emulsion, very low birth weight (VLBW) infant, parenteral nutrition associated cholestasis (PNAC).

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