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# Greater occipital nerve block for the treatment of migraine: protocol for a network meta-analysis

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## **ADMINISTRATIVE INFORMATION**

**Support** - Boxi Youth Natural Science Foundation (BXQN2023005) and the National Natural Science Foundation of China (No. 82171309 and No 82201445).

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

**INPLASY registration number:** INPLASY202510100

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 24 January 2025 and was last updated on 24 January 2025.

# **INTRODUCTION**

Review question / Objective To compare the effectiveness of different blockade agents in greater occipital nerve (GON) block for relieving migraines.

Condition being studied Some randomized controlled trials have evaluated the effectiveness of GON block with intervention agents versus placebo, but no comprehensive meta-analysis currently exists that compares the effectiveness of different blockade agents.

#### **METHODS**

**Search strategy** MEDLINE, Embase, CENTRAL, and ClinicalTrials.gov were searchded for studies published before December 1, 2024. Various keywords were used: Greater Occipital Nerve block; migraine.

**Participant or population** Participants diagnosed with migraine.

**Intervention** GON block with local anesthetics and/or corticosteroids.

Comparator GON block with saline.

Study designs to be included RCT.

**Eligibility criteria** Comment, letters, reviews, retrospective studies, case reports, or case series.

**Information sources** MEDLINE, Embase, Cochrane, and clinicalTrials.gov.

Main outcome(s) VAS.

**Additional outcome(s)** Headache duration and headache days.

Quality assessment / Risk of bias analysis The risk of bias was assessed with Cochrane Collaboration's tool.

**Strategy of data synthesis** Stata (version 18.0) and R (version 4.3.3) were used. Statistically significant differences were considered at P < 0.05.

Subgroup analysis Not available.

Sensitivity analysis The I2 were used to explore heterogeneity. Random-effects model was used for I2  $\geq$  50%. Fixed-effects model was used for I2 < 50%.

Language restriction English.

Country(ies) involved China.

**Keywords** Migraine; greater occipital nerve block; network meta-analysis.

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