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ADMINISTRATIVE INFORMATION

Support - None.
Review Stage at time of this submission - Data extraction.
Conflicts of interest - None declared.

INPLASY registration number: INPLASY202560043
Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 June 2025 and was last updated on 10 June 2025.

INTRODUCTION

Review question / Objective How effective is hyperbaric oxygen therapy in treating systemic disorders in children with Autism Spectrum Disorderautism?

Condition being studied According to the latest statistics, the incidence of autism spectrum disorder has been on the rise in recent years, with a global prevalence rate of 1% to 2%. In China, the incidence rate is 1%, while in the United States, it is as high as 1 in 36.

METHODS

Participant or population Children with Autism Spectrum Disorder.

Intervention Hyperbaric Oxygen Therapy.

Comparator Provide some form of experimental intervention comparison as a control, such as:
– Fake intervention;

- Another type of active therapy (such as psychotherapy or medication);
- Routine care.

Study designs to be included Not reported.

Eligibility criteria Not reported.

Information sources Electronic databases.

Main outcome(s) Hyperbaric oxygen therapy can increase oxygen supply and improve the condition of pediatric patients
Cerebral blood flow perfusion expands the range of oxygen diffusion, enabling the brain of children with autism to
The hypoxia caused by insufficient blood flow perfusion has been greatly improved.

Quality assessment / Risk of bias analysis The methodological quality of the research will be evaluated using the CONSORT checklist. In order to measure compliance, a two-point scoring system will be developed for each CONSORT

standard. If the item does not exist at all, the reviewer (LLH) will score it as "0". If the characteristic part exists (i.e. some aspects of the CONSORT item are missing or unclear), it will score as "1". If the CONSORT item exists and is clear, it will score as "2". Produce a summary of the overall quality of the study as a randomized clinical trial. This evaluation method will undergo validity and consistency checks by three co authors (LLH, LN, and LS).

Each study will also use the Cochrane Risk of Bias Tool 2.0 (Rob 2: Sterne et al 2019) for bias risk assessment by three authors (LLH, LN, and LS), and address any inconsistencies through discussion.

Strategy of data synthesis We will use RevMan 5.4.1 software or suitable alternative software (such as Comprehensive Meta analysis) for all calculations.

Due to the expected clinical heterogeneity in most cases, we will use a random effects model for meta-analysis to determine the effect size.

We will comprehensively describe all the results included in the study in the form of text and tables.

We will provide a study description that includes the study population, task and measurement/material characteristics, study design, and study results.

We will also provide information on the quality of the research and point out limitations.

Subgroup analysis Not reported.

Sensitivity analysis Not reported.

Country(ies) involved China.

Keywords Hyperbaric Oxygen Therapy for Children with Autism Spectrum Disorder.

Contributions of each author

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