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Effectiveness of Constitutional Homoeopathic Medicines in Alzheimer's Disease with Aided Cognitive Therapy: A Randomised Placebo-Controlled Trial

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Abstract

Background

Alzheimer's disease (AD) is a chronic, progressive neurodegenerative disorder and the most common cause of dementia globally. Despite advances in pharmacotherapy, currently available medications offer only modest symptomatic benefit and do not substantially alter disease progression. There remains a need for integrative and individualized therapeutic strategies. Homoeopathy, grounded in constitutional and holistic principles, aims to address cognitive, emotional, and behavioural dimensions of disease. Structured supportive interventions inspired by cognitive–behavioural therapy (CBT) may further enhance cognitive engagement and orientation.
This study assessed the effectiveness of individualized constitutional Homoeopathic treatment combined with aided cognitive–behavioural supportive therapy in improving cognitive outcomes in patients with Alzheimer's disease using the ADAS-Cog scale.

Methods

A randomized, placebo-controlled trial was conducted involving 80 screened patients, of whom 68 met eligibility criteria and were enrolled. Participants were randomly assigned to:

- Homoeopathic Medicine Group (n = 34)
- Placebo Group (n = 34)

The intervention group received individualized constitutional prescriptions based on totality of symptoms, miasmatic assessment, and repertorial analysis. Both groups received standardized aided therapy including orientation cues, structured routine reinforcement, and memory-engagement tasks.

Cognitive performance was evaluated using the ADAS-Cog scale at baseline and after 3 months. Statistical analysis included paired t-tests for within-group comparison and independent t-tests with Welch's correction for between-group comparison. Significance level was set at $p < 0.05$.

Results

The Homoeopathic group demonstrated a statistically highly significant reduction in ADAS-Cog scores (mean difference 4.79 ± 1.01; $t = 27.72$; $p < 0.0001$).
The placebo group showed no statistically significant change (mean difference 0.24 ± 1.35; $t = 1.02$; $p = 0.317$).
Between-group comparison confirmed superiority of Homoeopathic treatment ($t = 15.74$; $p < 0.00001$). The effect size (Cohen's $d = 3.82$) indicated an extremely large clinical effect.

Conclusion

Individualized constitutional Homoeopathic treatment combined with aided cognitive support produced statistically significant and clinically meaningful cognitive improvement in Alzheimer's patients compared to

placebo. These findings suggest a potential role for integrative supportive approaches in dementia care. Larger multi-centre trials with extended follow-up are recommended.

Keywords: Alzheimer's Disease, Homoeopathy, ADAS-Cog, Cognitive Impairment, Randomized Controlled Trial

Introduction

Alzheimer's disease (AD) is a progressive neurodegenerative disorder characterized by deterioration of memory, cognition, language, orientation, executive functioning, and behavioural regulation **[1]**. It is the leading cause of dementia worldwide and contributes significantly to disability, caregiver burden, and reduced quality of life **[2,6]**.

Neuropathologically, AD is associated with amyloid-β plaque accumulation, neurofibrillary tangles, synaptic dysfunction, oxidative stress, and neuronal degeneration **[3]**.

Clinically, the disease initially presents with subtle memory impairment, disorientation, difficulty in managing finances or daily tasks, mood disturbances, irritability, anxiety, and sleep disruption **[4,5]**. As the condition progresses, cognitive impairment deepens, leading to behavioural disturbances, psychotic symptoms, and complete functional dependency **[5,6]**.

Currently available pharmacological therapies, including acetylcholinesterase inhibitors (Donepezil, Rivastigmine, Galantamine) and NMDA receptor antagonists (Memantine), offer modest symptomatic benefit but have limited disease-modifying potential and may be associated with adverse effects and reduced long-term compliance **[7,8]**. These limitations highlight the importance of exploring complementary and integrative therapeutic approaches.

Homoeopathy emphasizes individualized constitutional treatment based on totality of symptoms. Evidence supporting its potential role in cognitive disorders has been described in case reports and experimental studies **[9,10]**.

For objective assessment of cognitive change, the Alzheimer's Disease Assessment Scale–Cognitive Subscale (ADAS-Cog) is widely recognized as a validated and sensitive research tool **[11]**.

Aim

To evaluate the effectiveness of constitutional Homoeopathic medicine in the management of Alzheimer's disease when administered alongside aided cognitive therapy.

Objectives

1. To identify behavioural and cognitive disturbances commonly observed in patients with Alzheimer's disease.
2. To assess the role of individualized Homoeopathic treatment in improving cognitive performance and modifying short-term disease trajectory.

Methodology

This randomized controlled trial was conducted at the Hospital Wing of Sri Ganganagar Homoeopathic Medical College Hospital & Research Institute, Rajasthan. Ethical approval was obtained from the Institutional Ethics Committee. The study was prospectively registered with the Clinical Trials Registry–India (CTRI/2024/10/0755088).

Sample Distribution

- Total screened: 80
- Eligible and enrolled: 68
- Homoeopathic Group: 34
- Placebo Group: 34
- Study duration: 3 months
- Assessment tool: ADAS-Cog
- Follow-up interval: Every 15 days

Inclusion Criteria

- Age 45–85 years
- Clinically diagnosed Alzheimer's disease
- Willingness to participate with informed consent
- Minimum follow-up of 3 months

Exclusion Criteria

- Severe systemic illness

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- Co-existing major psychiatric disorders
- Inability to adhere to follow-up schedule

Intervention Protocol

Group A – Homoeopathic Medicine (n = 34)

- Individualized constitutional prescription
- Remedy selection based on totality, miasmatic background, repertorial analysis
- Commonly prescribed medicines: Baryta carbonica, Anacardium orientale, Phosphorus, Lycopodium, Alumina, Calcarea phosphorica
- Potency range: 30C to 1M
- Standardized CBT-inspired supportive therapy

Group B – Placebo (n = 34)

- Identical placebo preparation
- Same supportive cognitive therapy

Duration: 3 months
Assessment: Baseline and 3-month ADAS-Cog

Statistical Analysis

- Paired t-test: Within-group comparison
- Independent t-test (Welch's correction): Between-group comparison
- Confidence Interval: 95%
- Effect Size: Cohen's d
- Statistical significance: $p < 0.05$

Results

Placebo Group (n = 34)

Mean ADAS-Cog score changed from 35.56 to 35.32.
Mean difference: 0.24 ± 1.35
t = 1.02
p = 0.317 (Not Significant)

Homoeopathic Group (n = 34)

Mean ADAS-Cog score decreased from 37.27 to 32.48.
Mean difference: 4.79 ± 1.01
t = 27.72
$p < 0.0001$ (Highly Significant)

Between-Group Comparison

Mean difference between groups: 4.55
t = 15.74
$p < 0.00001$
95% CI: 3.97–5.13
Cohen's d = 3.82 (Extremely large effect)

These findings demonstrate statistically robust and clinically meaningful improvement in the Homoeopathic group compared to placebo.

Discussion

The present study demonstrated significant cognitive improvement following individualized constitutional Homoeopathic intervention over a 3-month period. The placebo group did not show statistically significant change, suggesting that improvement was not attributable to natural fluctuation alone.

The mean reduction of 4.79 points on the ADAS-Cog represents clinically meaningful improvement in memory, language, orientation, and task performance domains **[11]**. These findings align with earlier reports suggesting potential benefits of individualized Homoeopathic management in dementia and cognitive impairment **[9,10]**.

Given the limitations of conventional pharmacotherapy in altering long-term disease progression **[7,8]**, integrative approaches that incorporate individualized medicine and structured supportive therapy may offer additional value in dementia care.

Conclusion

Constitutional Homoeopathic treatment combined with structured cognitive supportive therapy resulted in statistically significant and clinically meaningful improvement in cognitive function among patients with Alzheimer's disease compared to placebo. This integrative model may offer a promising supportive approach in dementia management, warranting further large-scale validation.

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None.

Conflict of Interest

The authors declare no conflict of interest.

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