A COMPARATIVE CLINICAL ANALYSIS OF THE EFFECTIVENESS OF *THYROIDINUM 3X* AS AN INTERVENTIONAL TREATMENT FOR PAEDIATRIC HYPOTHYROIDISM

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ABSTRACT

Paediatric hypothyroidism is an endocrine disorder of significant concern, requiring early and effective management to mitigate long-term developmental and cognitive deficits. This study compares the efficacy of augmenting the individualized constitutional homoeopathic remedy with the organopathic remedy *Thyroidinum 3X* versus the constitutional remedy alone. A comparative clinical cohort study was conducted on 30 cases of paediatric hypothyroidism (age 1-18 years, TSH < 20 mUI/ml) selected via purposive sampling. Subjects were randomly assigned to two groups (n=15 each): Group I (Intervention) received the individualized homoeopathic remedy plus *Thyroidinum 3X*, and Group II (Control) received the individualized remedy only. Outcomes were assessed using clinical improvement and changes in Thyroid Stimulating Hormone (TSH) levels, analyzed using the Paired 't' test. Post-treatment clinical improvement was achieved in 93% (14 cases) of the Intervention Group and 86% (13 cases) of the Control Group. The comparison of post-treatment mean TSH scores was statistically highly significant (t=1.690, p=0.000). The Intervention Group recorded a superior therapeutic benefit with a lower mean score (2.522 ± 1.1151) compared to the Control Group (3.184 ± 1.1391). The combination of the individualized homoeopathic constitutional remedy with Thyroidinum 3X is significantly more effective as an interventional treatment for Paediatric hypothyroidism, offering a superior therapeutic outcome.

Index term: Paediatric Hypothyroidism, Pre-determined Homoeopathic medicines, Thyroidinum 3X, Homoeopathy.

INTRODUCTION

The thyroid gland's role is indispensable for regulating growth, metabolism, and neurological functions in children. Paediatric hypothyroidism, characterized by deficient thyroid hormone production, is a critical disease that can lead to irreversible deficits, making early and effective intervention paramount. Conventional treatment involves lifelong hormone replacement therapy with Levothyroxine (LT4).

Homoeopathy, through its individualized and holistic approach, offers an alternative management strategy for chronic conditions. The use of *Thyroidinum*, a sarcode derived from the thyroid gland, in low potencies such as 3X, is practiced for its organopathic action—providing direct support to the glandular function. This research was undertaken to provide clinical evidence on whether this specific organ support, delivered by *Thyroidinum 3X*, significantly enhances the deep-acting effects of the constitutional homoeopathic remedy in affected children.

NEED FOR THE STUDY:

Paediatric hypothyroidism is an important endocrine disorder characterized by inadequate secretion of thyroid hormones during childhood. Thyroid hormones are essential for normal growth, neurological development, and metabolic regulation, and deficiency during early life can lead to significant physical and cognitive impairment. The condition may be congenital or acquired, with causes including genetic factors, iodine deficiency, autoimmune thyroid disease, and medication-induced hypothyroidism. If not diagnosed and treated in a timely manner, paediatric hypothyroidism can result in growth retardation, delayed puberty, learning difficulties, and reduced quality of life. In view of the limitations of conventional therapy and the growing interest in complementary and alternative treatment approaches, there is a need to explore the role of Homoeopathic medicines in paediatric hypothyroidism using evidence-based methods. The purpose of this study was to evaluate the effectiveness of *Thyroidinum 3X* as an interventional Homoeopathic medicine in the management of paediatric hypothyroidism, in comparison with pre-determined constitutional Homoeopathic remedies such as *Calcarea carbonica*, *Natrum muriaticum*, *Baryta carbonica*, *Lycopodium*, and *Calcarea phosphorica*. The study aimed to assess improvement in clinical symptoms and thyroid function parameters, thereby contributing to a better understanding of the potential role of Homoeopathy in paediatric endocrine disorders.

MATERIALS AND METHODS

3.1. Study Design and Setting: This research was structured as a comparative clinical analysis conducted at Sarada Krishna Homoeopathic Medical College Hospital over a 1-year period.

3.2. Sample Selection: Thirty cases (n=30) of paediatric hypothyroidism were recruited using the Purposive Sampling technique.

- **Inclusion Criteria:** Patients aged 1–18 years and diagnosed with Clinical or Subclinical Hypothyroidism, with a TSH level below 20 mUI/ml.

3.3. Intervention and Grouping: After detailed case-taking and prescription of an individualized constitutional homoeopathic remedy, subjects were randomized into two groups (n=15 each):

- **Group I (Intervention):** Received the constitutional homoeopathic medicine **PLUS** *Thyroidinum 3X*.
- **Group II (Control):** Received the constitutional homoeopathic medicine **ONLY**.

The core constitutional remedies prescribed were selected from a pre-determined list including *Calcarea carb*, *Natrum mur*, *Baryta carb*, *Lycopodium*, and *Calcarea phos*.

3.4. Outcome Measures and Analysis: Primary outcome measures included clinical symptomatic improvement and changes in Thyroid Stimulating Hormone (TSH) levels after a 4-month treatment period. Statistical analysis utilized the Paired ‘t’ test to compare the post-treatment TSH scores, with a significance level set at $p<0.05$.

OBSERVATION AND RESULTS

The study's findings are presented below, utilizing descriptions of statistical charts instead of tables:

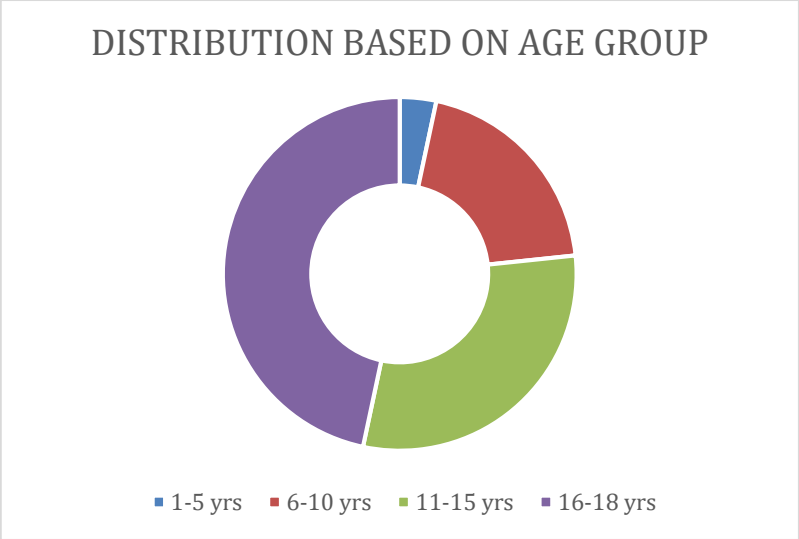

Chart 1: Distribution based on age

The 16–18 years age group accounted for the highest number of cases, at 47% (14 cases).

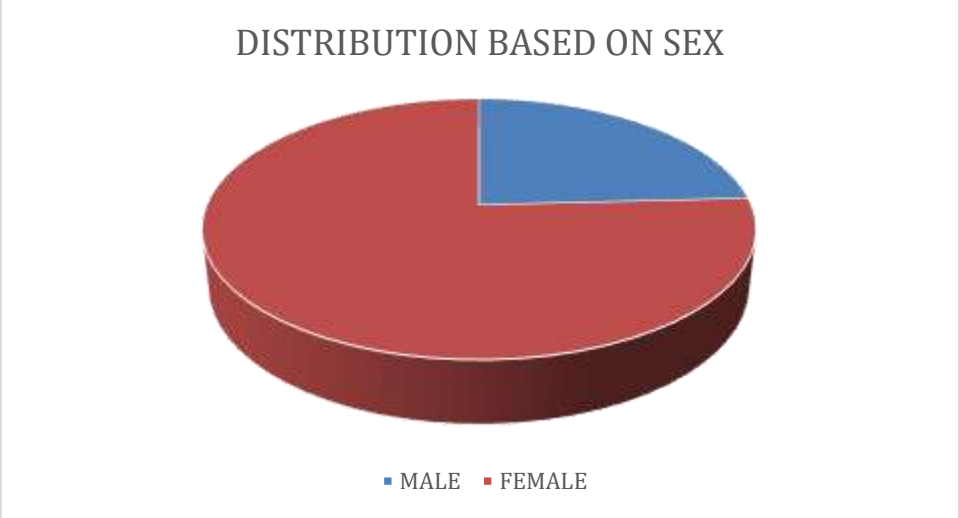

Chart 2: Distribution based on sex

A female predominance was observed, with 19 cases (63%) being female.

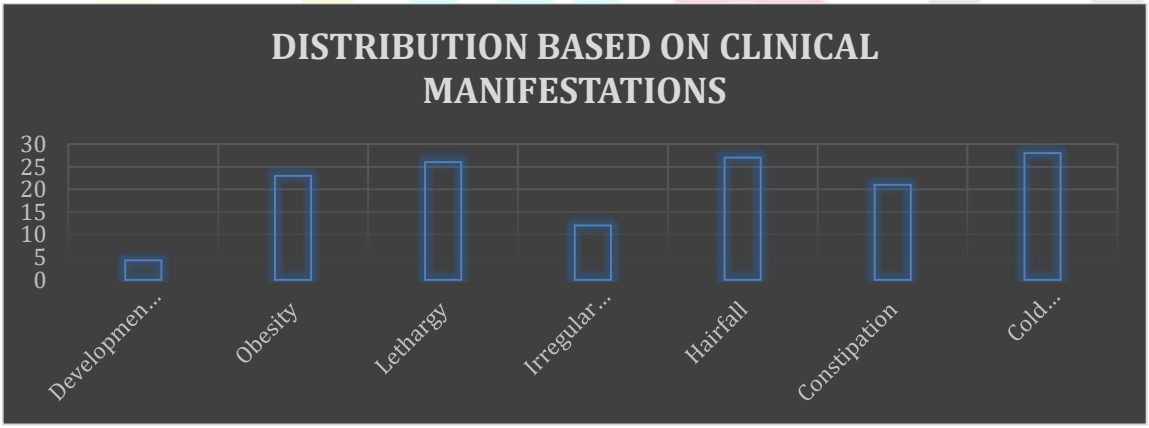

Chart 3: Prevalence of Predominant Clinical Symptoms

The most common symptoms observed, consistent with known hypothyroidism clinical criteria, were Cold intolerance (93%), Hair fall (90%), and Lethargy (87%).

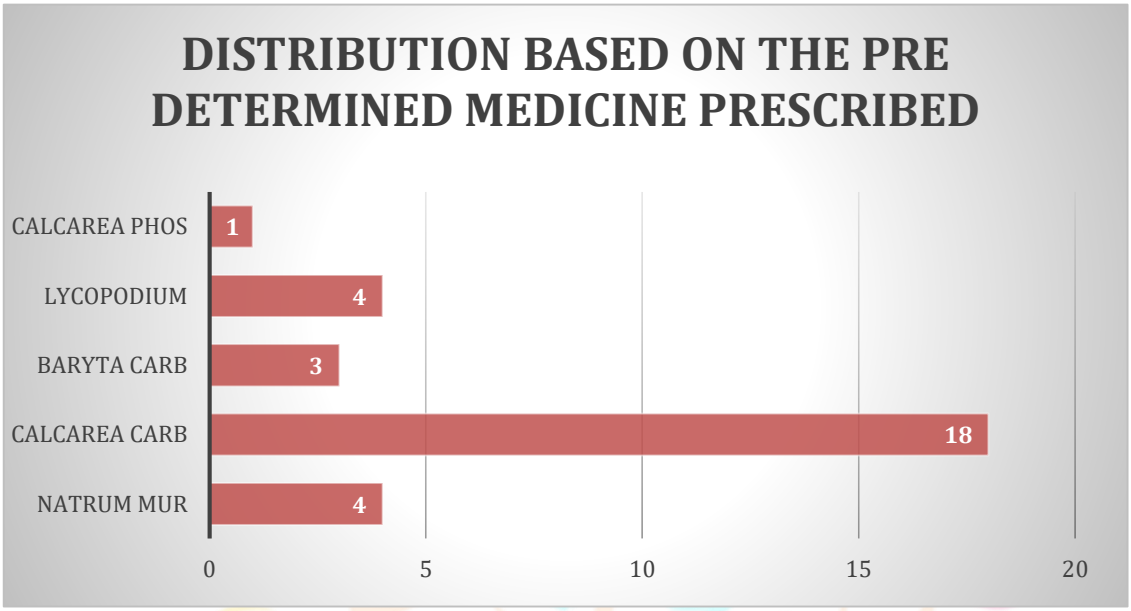

Chart 4: Distribution of Constitutional Remedies Prescribed

Calcarea carbonica was the most frequently indicated remedy, prescribed in 61% (18 cases).

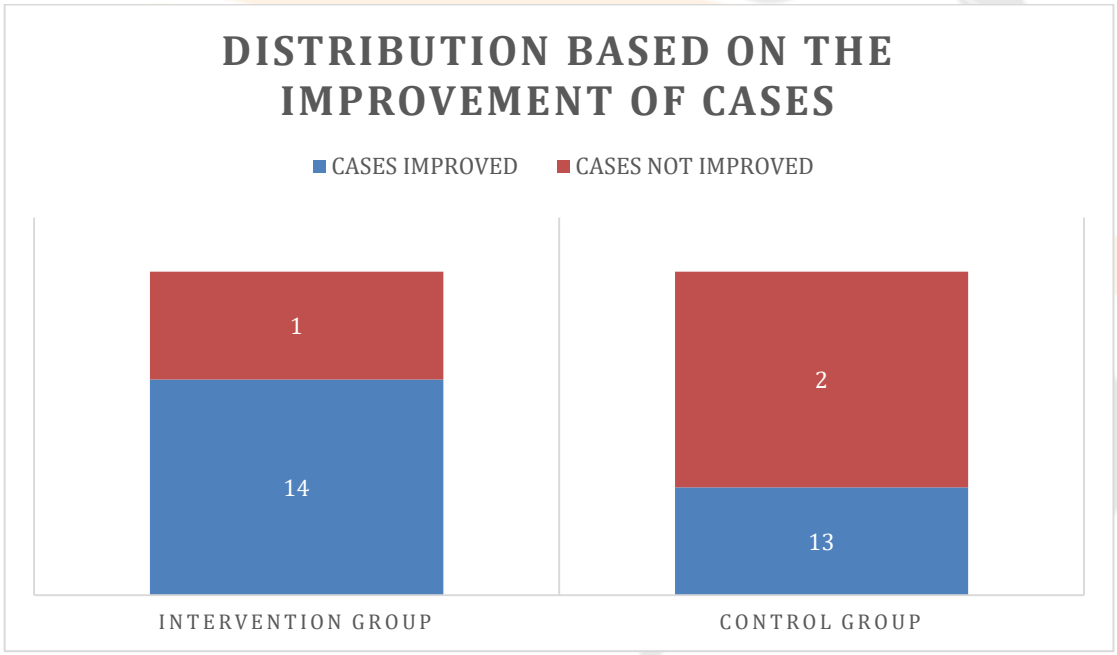

Chart 5: Based on Clinical Improvement

The Intervention Group (Constitutional + *Thyroidinum 3X*) showed a 93% improvement rate, marginally higher than the Control Group's 86% improvement rate.

Mean TSH Score: The Intervention Group's post-treatment mean TSH score (2.522 \mIU/mL) was lower than the Control Group's (3.184 \mIU/mL).

Statistical Significance: The Paired 't' test confirmed that this difference was statistically highly significant (p=0.000), rejecting the null hypothesis.

DISCUSSION

The significant clinical improvement observed in both arms (86% and 93%) supports existing evidence on the

effectiveness of individualized homoeopathic treatment for chronic conditions like hypothyroidism. The high frequency of *Calcarea carb* prescription aligns with its well-known action on the glandular system and developmental issues common in this patient group.

The most impactful finding, however, is the superior outcome achieved by the Intervention Group, evidenced by the highly significant difference in the post-treatment TSH scores (p=0.000). This confirms that the inclusion of *Thyroidinum 3X* effectively enhances the therapeutic results. This synergistic effect is likely due to the low-potency *Thyroidinum 3X* providing a supportive, organopathic stimulus directly to the thyroid gland, complementing the deep-acting, constitutional action of the primary remedy. This combination offers a potent and verifiable therapeutic strategy for homoeopathic practitioners managing paediatric hypothyroidism.

CONCLUSION

This comparative clinical analysis definitively concludes that the Homoeopathic medicine Thyroidinum 3X, when administered as an interventional adjunct to the individualized constitutional remedy, is statistically significantly more effective than constitutional treatment alone, providing a superior therapeutic outcome in the management of Paediatric hypothyroidism.

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