A study to compare the efficacy of *Eschscholzia californica* MT and *Passiflora incarnata* MT in insomnia

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Abstract

**Objective:** The aim of the study is to compare the efficacy of *E. californica* MT and *Passiflora incarnata* MT in Insomnia. Sampling: Randomized controlled trial, Patient attending OPD with complaint of Insomnia. Sample size of 30 patients, Inclusion Criteria: Patient with complaint of Insomnia (Age: 25 to 45 year). Exclusion: Patient suffering from Diabetes mellitus, hypertension, Hypothyroidism or taking any drug; Data Collection: Data collection is done through structured questioner. Data analysis: the data is analyzed using SPSS Version 21 Conclusion The study concluded that *Eschscholzia californica* is found more effective than *Passiflora incarnata* in cases of Insomnia.

Keywords: Yucatec maya, traditional medicine, plant use, herbalist

Introduction

Insomnia has become a common problem among the people these days. Due to increasing stress level, night shifts, lack of exercise and sedentary lifestyle it has become prevalent among the age group of 25 to 45 year. Homoeopathy has a wide scope for the patient suffering from insomnia. Needless to mention that regular exercise, balanced diet, good sleeping habits are essential to overcome this problem. This study it is attempted to compare the efficacy of two of the well-known medicines used for insomnia in homoeopathy *Eschscholzia californica* and *Passiflora incarnata*.

Review of Literature

Insomnia is a sleep disorder characterized by difficulty in falling and/or staying asleep. Symptom which are found in patient suffering from insomnia are: Difficulty in falling asleep, waking to early in morning, waking up often during night, difficulty in going back to sleep once awake at night.

Types of Insomnia

There are two types of insomnia
1. Primary insomnia
2. Secondary insomnia

**Primary insomnia:** A person having sleep problems that are not directly associated with any other health condition is called as primary Insomnia.

**Secondary insomnia:** A person having sleep problems because of some other health condition or medication.

Both Primary and Secondary Insomnia can be acute or chronic depending upon its duration of existence i.e how long it lasts and how often it occurs. Acute insomnia which comes and go can last from one night to a few weeks whereas chronic insomnia a person has sleeping problem at least three nights a week for three months or longer.

Causes of Insomnia

**Life stress**

**Illness**

**Emotional or physical discomfort**

Environmental factors like noise, light, or extreme temperatures (hot or cold) Medications Interferences in normal sleep schedule (jet lag / switching from a day to night shift) Depression and/or anxiety
Symptoms of Insomnia
Sleepiness during the day
General tiredness
Irritability
Lack of concentration

Homoeopathic medicines for Insomnia

\textbf{Eschscholzia californica}

\textit{Eschscholzia californica} (California poppy) is a plant which is found in California and is used for its medicinal values. It is a non-narcotic antispasmodic, sedative and analgesic soporific remedy used to promote relaxation and found useful for trouble sleeping (insomnia), aches, nervous agitation, nervous tension, anxiety bed wetting in children, depression, long-term mental and physical tiredness (neurasthenia), nerve pain, various psychiatric conditions, blood vessel problems, sensitivity to weather changes, and sedation. It is commonly known for its therapeutic effects in relieving toothache and acts as tranquilizer. In animal experiments, it has been found to act more powerfully than morphine.

\textbf{Passiflora incarnata}

\textit{Passiflora incarnata} is an efficient anti-spasmodic remedy used full in acute diseases with painful inflammatory condition leading to insomnia. It affords great and instant relief in painful menstruation, unbearable labour pains, prolonged labour, eclampsia during labour, after pains etc. It is found very beneficial in hysterical affections of unmarried young girls. Also found use full in delirium tremens, Convulsions in children, spasmodic cough, whooping cough and Morphine habit. Though this research study is conducted to compare the efficacy of the \textit{Eschscholzia californica} MT and Passiflora incarnate MT. Other Medicines which are known for their efficacy in Materia Medica for insomnia other than \textit{Eschscholzia californica} and Passiflora incarnate are Kali Phos, Coffea, Nuc Vomica, Jalapa, Chamomilla etc.

Objective

To compare the efficacy of \textit{Eschscholzia californica} MT and \textit{Passiflora incarnata} MT in Insomnia

Methodology

A randomized controlled trial enrolling 30 patients suffering from primary insomnia, who met the selection criteria.

Sampling

Random sampling, Patient attending OPD with complaint of Insomnia.

Dosage

20 drops of MT bed time.

Inclusion Criteria

Patient with complaint of Insomnia. Age group 25 to 45 year
Having no serious physical abnormality other than insomnia. Not taking any treatment.
Patient is willing and able to comply with all trial requirements. Ability to understand the consent.
Patient able to understand and follow the protocol of the study.

Exclusion

Patient suffering from Diabetes mellitus, hypertension, Hypothyroidism, asthma or taking any allopathic, Homoeopathic or Ayurvedic treatment.
Patient who had taken drugs for insomnia in past. Pregnant and lactation
Previous participation in any clinical trial / proving in last 6 month Patient taking any drug.
Patient taking alcohol / smoking/ tobacco. Any contradiction to blood sampling.

Disposition

\textit{Eschscholzia californica} MT - 16 Subjects \textit{Passiflora incarnata} MT – 14 Subjects

Data Collection

Data collection is done through structured questioner. Questioner is drafted based on Insomnia measuring Instrument (Questionnaires) Clinical Practice Guideline in Spanish NHS.

Visit Details

Patient were screened and enrolled. The enrollment day was considered as the base line data and patient were asked to visit on: Day 10, Day 20, Day 30, Day 40.

End Point

Fulfillment of primary study objectives. In adverse event/ Incidence.

Statistical analysis

The data is analyzed using SPSS Version 21. Significance level 5%.

Table 1: Case Processing Summary

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Fig 1: Case Processing Summary (Bar Graph)

Table 2: Sledur

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Fig 2: Presentation (Report Sleep duration)

Table 3: Group Statistic

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Fig 3: Group Statistic (Bar Graph)

Table 4: Independent Sample T Test (Confidence Interval 95%)

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Fig 4: Independent Sample T Test (Graphical presentation)
Conclusion
The p-value of Levene's test is 0.037 which is < than 0.05 accordingly we reject the null of Levene’s test and conclude that the variance in sleep duration of the Group 2 (E. californica) is significantly different than that of Group 1 (Passiflora incarnata).

Negative t value indicates that the mean sleep duration of Group 1 (Passiflora incarnata) is significantly lesser than the mean of Group 2 (E. californica).

Since P is less than 0.05 (chosen significance level), we conclude that there is significant difference between mean sleep duration for Group 1 (Passiflora incarnata) and Group 2 (E. californica).

Based on the findings we can state that
Average sleep duration for Eschscholzia californica MT was 59 minutes more than for Passiflora incarnata in cases of insomnia.

Reference
3. An Overview of Insomnia https://www.webmd.com/sleep-disorders/guide-insomnia-symptoms-and-causes#1-2 © 2019 WebMD, LLC. All rights reserved