

FATHER MULLER HOMOEOPATHY RESEARCH BULLETIN 2023



Editorial

FATHER MULLER

Homoeopathy Research Bulletin
2023



Dr Reshel Noronha
Coordinator
Research &
Scientific Committee

Dear Readers,

We are proud to present the second edition of the Research Bulletin for the year 2023. This Bulletin contains the various research projects completed by the students of Father Muller Homoeopathic Medical College under RGUHS Short Term Research Grant projects, CCRH STSH projects and MLD projects.

Every year the Research activities in our campus keeps blooming and this bulletin highlights all the projects completed by our students. The hard work of the students along with their dedicated guides is well appreciated and this bulletin is an initiative to encourage them.

We hope that the enthusiasm and interest the students have in Research keeps continuing in the future years to enrich the content of this bulletin and hopefully make it a well known Journal.

Happy Reading.

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Administrator's Message



Rev. Fr Roshan Crasta
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Father Muller
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& Hospital

I am delighted to pen my message for the Second Edition of Father Muller Homoeopathy Research Bulletin – 2023. I appreciate the initiative of the Research and Scientific Committee of Father Muller Homoeopathic Medical College headed by Dr Reshel Noronha and all the members, ably guided by Principal Dr E. S. J. Prabhu Kiran. The main objective of this Bulletin is to capture the gist of the Research activities conducted by the students of our Homoeopathic College.

From the past few years our college has been actively involved in Research activities at the UG and PG level and making a steady progress in Research and Innovation. These Research activities will help the future of Homoeopathic system of medicine to make it an evidenced based and enhance our knowledge.

Thank you God Bless All.

Principal's Message



Dr E. S. J. Prabhu Kiran
Principal
Father Muller
Homoeopathic Medical College

Research as an academic activity in Homoeopathy is becoming more and more relevant and important in analysis of the existing knowledge and in acquiring new knowledge. It is providing us with more avenues to explore and predict the outcomes Homoeopathic treatment.

Fr Muller Homoeopathic Medical College continuously strives to promote research in different aspects of Homoeopathy. The college initiated Dr M L Dhawale memorial research projects for UG and PG students. The students of the college regularly secure research grants from Central Council for Research in Homoeopathy and Rajiv Gandhi University of Health Sciences for undergraduate student short term studies.

For the past few years the PG scholars of the college have been securing the CCRH scholarship for the best PG dissertation

Father Muller Research Bulletin documents all the research related activities at the college and provides apart from sharing and learning a platform for recognition and appreciation of the efforts of the young research scholars.

I congratulate the Editorial team headed by Dr Reshel Noronha, Coordinator of Research and Scientific committee for publishing the research bulletin on time and hope it makes an enriching reading.

Let me wish you all Merry Christmas and a Happy New Year with much more achievements.

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AN OBSERVATIONAL STUDY TO DETERMINE THE ASSOCIATION BETWEEN HAIR FALL AND PSYCHOLOGICAL STRESS DUE TO ACADEMIC EXAMINATION

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INTRODUCTION

Hairloss is the common dermatological condition that affects men and woman of all ages. It can be due to a wide variety of causes including scarring and non-scarring diseases. Although hair loss is not an life threatening condition, it has significant psychological impact on the quality of life.

Hairfollicle : Hair is the protein filament that grows from the follicle in dermis. It is an important biomaterial primarily composed of protein, notably alpha-keratin. Hair is the second fastest growing tissue of human body. Hair growth begins inside the hair follicle. The only living portion of the hair is the follicle. The hair that is visible is the hair shaft, which exhibits no biochemical activity and considered as dead. Normal hair fall is about 50 to 100 hair per day; if it increases the limit it is termed as alopecia or balding.

Telogen Effluvium : Telogen effluvium is the one of the most common cause of diffuse non-scarring hair loss. It is the reversible condition in which hair falls out after a stressful experience. The stress pushes large numbers of hair follicle into resting phase. Within a few months, those hairs can fall out. In its acute form, it generates a lot of anxiety in the students. In its more chronic form, the hair loss may go unnoticed for long period of time. A number of factors have been implicated in the causation of Telogen effluvium, however clear evidence in their support is still lacking. The role of stress as a causative factor as well as the result of hair loss to be adequately understood.

Stress on Students : Though hair loss is not a debilitating or life threatening sickness, the very thought of becoming bald can lead to the emotional stress and traumatic experience for those who suffer from premature or excessive hair loss. It may be the temporary hair loss but affects the students with many psychological implications especially during examination period, as high level of stress is bound to affect the medical students, we study the association of hair fall and the stress.

MATERIALS & METHOD

Participants were graded on their hair fall by a Hair pull test and subjective stress level assessed with the questionnaire using 14- Sheldon Cohen 'Perceived stress scale' during both non-examination and examination periods.

Type of Study : An Observational study

Study Population : Medical students who have been experiencing intense hair fall during exam, age group of 18 to 23 years was included in the study.

Source of Data :

- Data is collected from the students of Father Muller homoeopathic medical college.
- The questionnaire is from the standard perceived stress scale and the data derived from pull test is the quantity of hair loss before and after.
- The examination period were during examination and non-examination period were before one month of examination.

Selection Criteria:

- **Inclusion criteria:**
 - Medical students of age limit 18 – 23 years
 - Medical students of both sexes
- **Exclusion criteria:**
 - Students having anemia
 - Students having hormonal imbalance
 - Students taking medications

Hair Pull Test Procedure:

Hair loss is assessed by a method called hair pull test. It is easiest way to assess the severity of the diffuse scalp hair loss. To perform this test, select 50 to 60 hairs and holds the bundle close to the scalp between the thumb, index finger, and long finger. The clinician then firmly pulls on the bundle using slow traction as the fingers slide down the hair shaft, avoiding a fast and forceful tug. The hair pulls are performed at the vertex of the scalp. Next, the pulled hairs are counted. Any broken hairs that were extracted from the bundle during the pull are discarded. If more than 6 of the hairs in each bundle are removed from a scalp area, the hair pull test is considered positive and indicates excessive hair loss. If fewer than 6 are removed, then the hair loss can usually be attributed to normal shedding.

Perceived Stress Scale Procedure:

The questionnaire was filled by the students. The total count categorize the person with stress. Person having the value of 0-13 is having low stress; 14-26 is having moderate stress; 27-40 is having high stress level.

Data Collection Procedures:

- Students were approached directly.
- A briefing was done to the students.
- Consent of students was taken.
- Questionnaire was given to the students once during examination period and non-examination period and ask them to fill it. So that we will be able to calculate the stress level.
- Students were asked to wash their hair and then to do the Hair pull test during both examination and non-examination period.
- A proforma was formatted with the data of their name, phase (examination /non-examination), date of the hair pull test done, number of hair follicles pulled

and their stress level of 137 students to observe the increase (quantity) in normal hair loss and hair loss on examination.

- Association between the stress and hair-fall will be assessed by using chi-square test.

RESULTS

A sample size of 137 students from Father Muller Homoeopathic Medical College was taken for the study. By using chi-square, the association between hair fall and examination stress were assessed. In that only 1 (0.7%) students were having active hair loss with moderate stress during examination while Others having low stress 3 (2.2%), moderate stress 112 (81.8%) and high stress 22 (16.1%) with normal hair fall during examination. [P= 0.887] Which shows no significant association of hair fall with examination stress. 2 (1.4%) students have active hair loss with moderate stress during non-examination period. Others having low stress 4 (2.9%); moderate stress 115 (84%) and high stress 16 (11.7%) with normal hair fall during non-examination, [P=0.539] which shows that there is no association between hair fall and non examination stress. Thus only 2(1.4%) students full filled the criteria for active hair loss. Therefore there is no significant association between hair fall and stress.

The stress level during examination and non examination were also compared. With mean value of 0.796; P= 0.004; There is significant difference between stress levels during examination and non examination period; but does not have significant association with hair fall. Subjects with > 5 hairs on HPT were considered to have excessive hair loss. Statistical significance between the two was studied using Chi-square test. Significance level was set at $p < 0.05$.

The difference between hair fall during examination and non examination period does not have significant difference. By using Wilcoxon signed test it was evaluated with the P value of 0.893. This again signifies that there is no much association of hair fall with stress.

CONCLUSION

From this observational study, we can say that the association between hair fall and the stress is quiet low, even though there is significance difference between stress levels during examination and non-examination period. Out of 137 students, Only 2[1.1%] students experienced active hair loss. Whereas other 135[98.9%] students have normal hair loss even with moderate and high stress. Thus, there is no association between hairfall and stress in regard of examination period or non-examination period.

Further study can be done by having a large sample size and adding general population from different sector, so that we could get more people with active hair loss.

FUNDED BY

Short term Research Grant for UG students - Rajiv Gandhi University Of Health Sciences, Karnataka.

AN OBSERVATIONAL STUDY TO ASSESS THE EFFICACY OF OLFATORY MODE OF ADMINISTRATION OF ARUNDO MAURITANICA 6C FOR ACUTE ALLERGIC RHINITIS USING TOTAL NASAL SYMPTOMS SCORE

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INTRODUCTION

This study aims to find efficacy of olfactory mode of administration of homoeopathic medicines and its scope in treating a prevalent condition like Acute Allergic Rhinitis.

Homoeopathic medicines are introduced in the body through various routes such as oral, olfaction and external application.

According to Organon of medicine the Homoeopathic medicines are usually administered singly and orally which are found to act effectively and promptly. Furthermore, the efficacy of the homoeopathic medicines with olfaction as the route of administration must be studied upon.

In Aphorism 288/ 1 F. N of 5th edition of Organon of Medicine, Hahnemann states that “Medicinal aura thus inhaled comes in contact with the nerves in the walls of the spacious cavity it passes through without obstruction, and produces a salutary influence on the vital force, in the mildest yet most powerful manner, and this is much preferable to every other mode of administering the medicament in substance.”

Rhinitis is a condition which produces a number of symptoms because of nasal inflammation or dysfunction of the nasal mucosa. It is considered as a pathologic condition with considerable morbidity. Rhinitis may be associated with infections, immediate-type allergic responses, inhaled irritants, drugs, hormonal disturbances, and neurological dysfunction. It is clinically classified into allergic rhinitis, infectious rhinitis, and non-allergic non-infectious rhinitis.

Other name of Allergic rhinitis is hay fever, it is an allergic reaction that causes sneezing, congestion, itching of nose, and sore throat. Pollen, pet dander, mold and insects can lead to hay fever symptoms. Approximately 10% to 20% of the global population suffers from allergic rhinitis.

Arundo mauritanica is a remedy for acute Allergic Rhinitis. Annoying itching in the nostrils and roof of the mouth, Coryza also is there with loss of smell, Sneezing and itching of nostrils are the important indications.

It is assessed using Total Nasal Symptoms Scoring criteria before and after treatment. “The Total Nasal Symptom Score (TNSS; possible score of 0-12) is the sum of 4 individual participant-assessed symptom scores for rhinorrhea, nasal congestion, nasal itching, and sneezing, each evaluated using a scale of 0=None, 1=Mild, 2=Moderate, or 3=Severe”.

itching, and sneezing, each evaluated using a scale of 0=None, 1=Mild, 2=Moderate, or 3=Severe”.

MATERIALS & METHOD

Type of Study & Study Design : Prospective Observational study.

Study Population : The subjects for this study were selected from those patients who suffered from Acute Allergic Rhinitis and who attended the outpatient department of Father Muller Homoeopathic Medical College and Hospital.

Selection Criteria:

Inclusion criteria :

- Age- Between 20-50 years
- Both sexes
- Diagnosed cases of Acute Allergic Rhinitis with *Arundo mauritanica* 6c is indicated.

Exclusion criteria:

- Patients who were on homoeopathic medicines other than *Arundo mauritanica* for a period of 1 week
- Taking medicines from other systems for the same complaint.
- On medication for other systemic disorder.

Data Collection and Procedure:

Diagnosed cases of Acute Allergic Rhinitis cases were collected from OPD, IPD and peripheral centers of Father Muller Homoeopathic Medical College and Hospital based on inclusion and exclusion criteria.

The Total Nasal Symptoms Scoring criteria was recorded before the treatment with patient's consent. Along with the present scoring, condition of the patient before 12 hours and two weeks also noted. Then globules were moistened with *Arundo Mauritanica* 6th centesimal potency in a 1-dram phial is given to the patient. The patient was asked by the treating physician to hold the open mouth of phial first in one nostril, and, in the act of inspiration draw the air out of it into himself.

If both the nostrils were stopped up; the patient was asked to inhale by the mouth holding the orifice of phial between the lips. The remedy was repeated half an hour before food by olfaction thrice a day for 3 days. After administering the medicine in an olfactory method, the total nasal scoring is marked at the end of third day.

Confidentiality

All the information collected in this study will be kept strictly confidential except as may be required by law. Subjects will not be identified by name if the results of the study are published.

Statistical Analysis : Statistically analyzed by using 'Wilcoxon signed rank test'.

End Point : Assessment of the effectiveness has been done based on the following criteria:

- 1) Clinical assessment- Disappearance of symptoms and improvement of general health.
- 2) Based on Total Nasal Symptom Score.

Alternate Hypothesis :

Arundo mauritanica 6c with olfaction as route of administration is effective in the management of Acute Allergic Rhinitis

Null Hypothesis : Arundo mauritanica 6c with olfaction as route of administration is not effective in the management of Acute Allergic Rhinitis

RESULTS

Cases have been grouped into 3 categories according to different age groups and out of which, Age group 20 – 30 had the highest percentage which is of 58.34% followed by the Age group 41 – 50 having 25% and 31 – 40 age group with 16.66%.

Distribution of cases according to the occupation is the most affected people is students with 41.67% followed by housewife and business people about 16.67%.

The statistical test which used here is 'Wilcoxon signed rank test'. This test is applied here to analyze each pair wise within group comparison of nasal congestion, running nose, nasal itching, sneezing and difficult to sleep during acute allergic rhinitis. In this table the 'Z' value is noted as -2.889b, -2.701b, -2.579b, -2.969b and -1.000b respectively. 'Z' value for the total score before and after the treatment is -3.063b and $n=12$ (n =sample size).

Each symptom has taken into consideration and calculated table value is 0.002, it is less than 0.05 which is statistically highly significant.

This study result show that olfactory mode of administration of Arundo mauritanica 6c is very effective in acute Allergic rhinitis.

CONCLUSION

This study shows that there is significant reduction in total nasal symptoms score after the olfactory method of administration of Arundo mauritanica 6C.

According to the Statistical analysis by using 'Wilcoxon signed rank test' the P value is less than 0.05, which denotes that this study is highly statistically significant and rejected the null hypothesis. This study is concluded that the olfactory mode of administration of Arundo mauritanica 6c for Allergic rhinitis is effective.

Further studies on other Homoeopathic remedies on a larger sample size could be done to understand the efficacy of olfactory mode of administration of drugs.

FUNDED BY

Short term Research Grant for UG students -Rajiv Gandhi University Of Health Sciences, Karnataka.

THERMAL ANALYSIS OF NATRUM MURIATICUM 6X POWDER APPLYING THERMOGRAVIMETRIC ANALYSIS TECHNIQUE

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INTRODUCTION :

Thermogravimetric analysis is a method to study the thermal decomposition of a substance by heating within a particular range of temperature in a programmed setting. Shelf-life or expiry date of homoeopathic medicines is 60 months as per the Drug and Cosmetic Rule, Schedule – M1. The thermo-analysis may be used to study the thermal stability to fix the shelf-life of a particular biochemical preparation.

MATERIALS & METHOD :

The Thermogravimetric analysis was performed in the TA 4000 instrument available at National Institute of Technology, Karnataka which is controlled by PerkinElmer's proprietary thermal software, Pyris software. The thermal analysis system supported a temperature range from ambient to 1000°C. Initially, the instrument was calibrated by measuring the temperature difference between two empty ceramic pans. After taring the instrument, 23 mg of the test sample of Natrum Muriaticum 6X powder was spread over the sample pan ensuring thermal contact. The reference pan was kept empty. The samples included a freshly prepared and an old sample from 2013 batch which were procured from the manufacturer of homoeopathic medicines conforming to the standards of good manufacturing practices scheme. Appropriate measures were taken to prevent contamination. The containers were adequately insulated and transported to the Central Research Facility at NITK, Surathkal where the experiment was conducted. The procedure was carried out from 23°C to 950°C at a ramp rate of 10°C/min in a nitrogen atmosphere at a flow rate of 20mL/minute. Triplicate testing was performed. From the thermograms obtained, the thermal stability, changes in sample composition, kinetic parameters for chemical changes, point of most apparent weight loss etc. , were analyzed with the help of a technical analyst. The precise graphical analyses were selected and the findings are reported.

RESULTS :

The findings of this research provide details on the thermal stability of Natrum Muriaticum 6X powder trituration of a 10-year-old and freshly prepared batch. The two batches showed uniform thermal stability with no significant variations in the degradation in the samples indicating that the older sample is thermally stable for use as a medicine with a shelf-life for a period more than 60 months.

CONCLUSION :

In conclusion, the thermal stability of Natrum Muriaticum 6X did not change with time. Hence, the expiry of Natrum Muriaticum 6X powder trituration that is fixed to 60 months as per Drug and Cosmetic Rule, Schedule - M1 may be revised using Thermogravimetric Analysis as a technique by testing all lactose-based preparations of different timelines. This qualitative method may aid in changing the current policy on the shelf-life of homoeopathic lactose-based trituration powders on a rational basis. Augmenting the analysis with differential scanning calorimetry technique would accentuate the implementation of the policy.

FUNDED BY :

Short term Research Grant for UG students-Rajiv Gandhi University of Health Sciences, Karnataka.

A RETROSPECTIVE STUDY TO ASSESS THE EFFECTIVENESS OF CONSTITUTIONAL METHOD OF TREATMENT IN REDUCING THE SIZE OF UTERINE FIBROIDS USING ULTRA SONOGRAPHY.

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INTRODUCTION: Fibroids/ Uterine Myoma/Leiomyoma is commonest benign tumour affecting the female during the reproductive age. Even though its cause was not apparently known, the considerable evidence shows that oestrogen and progesterone proliferate tumour growth.

Incidence : It has been found that at least 20% of female at the age of 30 years got fibroids in their womb. It hardly ever appear before menarche and regress after menopause. 70% of the onset is mainly during the beginning of menopause. .

RACE has a more significance, which shows by the evidence that African-American women prevails 60% and Caucasian women prevails 40% by the age 35. The incidence is more in cesarean section (48. 8%) than normal delivery(13. 3%).

Risk factors are, with the increasing age (70%) - upto menopause, Early menarche, Nulliparity, Obesity, PCOS, Hyperestrogenic state, Black women, Family history, Infertility.

Symptoms : Mostly it is asymptomatic (75%).

The commonly known symptoms are the heavy menstrual bleeding, which leads to anemia, abdominal pain, back pain, fatigue & painful periods. Others include non-cyclic pain, dysfunction resulting in urinary incompetence or retention, pain, or constipation, dyspareunia.

Ultrasonography is the important diagnostic tool for the uterine fibroids. It gives details about the size, number, location of fibroid and helps in the follow up study.

Constitutional approach is the most effective method of treatment in case of diseases like fibroids. The sum total of the individual characteristics in the three planes Emotional, intellectual and physical defines the constitution. To know the individual as a whole a detailed case taking is necessary. A Homoeopathic physician requires sufficient skills while case taking in order to obtain all details about individual and thereby to arrive at the constitution.

The fibroids undergoing Hysterectomy without correcting the constitutional tendency have the chances of recurrences. The Homoeopathic system of medicine has better remedies to manage fibroid condition. The Constitutional approach to the condition is the

most good and effective method of treatment in case of fibroid. As homoeopathy believes in holistic approach, we consider man as a complete unit. The main mission of the physician is to restore sick to health.

MATERIALS & METHOD :

Type of Study : Retrospective study

Sample Size : 26 Samples

Selection Criteria :

Inclusion criteria –

- Diagnosed case of Uterine fibroids of any size.
- Cases were pre and post treatment USG reports are available.
- Patients of age group 30-55 yrs.
- Patient prescribed with constitutional remedy of any potency.
- Cases with the follow up 6 months.

Exclusion criteria –

- Not associated with any other systemic disorders.

Methodology : Diagnosed case of uterine fibroids will be collected from the Father Muller homoeopathic medical college & its peripheral centers during the year 2016-2021 based on the inclusion & exclusion criteria and were noted in the performa without revealing the identity of the patient. Mainly the reduction in size of fibroid in each follow up with regular date, signs & symptoms along with medicine and dosage were noted.

Statistical Analysis : 26 cases of uterine fibroids will be collected from OPD based on the age group 30-55 years and data will be analyzed with Descriptive analysis & Wilcoxon signed rank test and McNemer test was used to statistically analyze the data in order to identify the significance.

RESULTS : By studying the efficiency of constitutional medicine in reducing the size and signs and symptoms of uterine fibroids I arrived at the conclusion that constitutional medicine was best in treating the uterine fibroids. Out of 26 patients 19 patients(73.1 %) showed reduction in size. out of 26 patients 12 patients had dysmenorrhoea(100%) which was relieved after the treatment. Out of 26 patients 19 patients had menorrhagia(76.9 %) in which 6 were relieved by the symptoms. Out of 26 patients 3 had metorrhagia(96.2%) in which one was relieved with the symptoms. Hence identifying the effectiveness of constitutional medicine in treating the uterine fibroids. Future work can be done by knowing the effectiveness of individual constitutional medicine and its significance in that.

CONCLUSION : This study revealed that homoeopathic constitutional remedy was helpful in reducing the size of uterine fibroids and also helps in relieving the signs and symptoms.

FUNDED BY : Short term Research Grant for UG students -Rajiv Gandhi University Of Health Sciences, Karnataka.

EFFECTIVENESS OF CHOLESTRINUM IN THE TREATMENT OF HYPER CHOLESTEROLEMIA - A RETROSPECTIVE STUDY

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Guide name : Dr G Rajachandra



INTRODUCTION

Cholesterol possesses a bigger problem in more developed nations and also in India. High cholesterol will lead to atherosclerosis and coronary artery disease. It is possible that hyperlipidaemia could be one of the major contributors to this epidemic of coronary artery disease. Cholesterol lowering leads to consistent reduction in total mortality and recurrent cardiovascular events. Nonetheless, treatment algorithms have been designed to assist clinicians in selecting patients for cholesterol-lowering therapy based on their lipid levels and their overall risk of developing cardiovascular diseases.

Cholesterinum is a liver remedy and has got an action on cholesterol metabolism. It is the well indicated remedy for hyperlipidaemia.

So, I would like to substantiate this observation and prove that Cholesterinum is effective in bringing down the cholesterol level.

MATERIALS & METHOD

This study was a retrospective kind of observation. sample size was calculated and found to be 18. Patients of both sexes aged between 30 to 70 with cholesterol levels >200 mg/dl and who were prescribed cholesterinum were considered for this study. Cases with different remedies for hypercholesterolemia and cases where patient is also under allopathic medication for hypercholesterolemia were excluded from the study.

The pre and post values of cholesterol levels were recorded. Wilcoxon signed-rank test was used to statistically analyse the data in order to identify the significance.

RESULTS

The study revealed that the 6th potency of cholesterinum showed reduction in cholesterol levels in many patients, as noticed in 16 cases which showcased 88.8% improvement. The average duration taken in the treatment was more than 24 weeks as per the statistical analysis. This study re-emphasises the utility of Homoeopathic remedies in effectively lowering down the cholesterol levels thereby modifying the cardiovascular morbidity without any side effects.

CONCLUSION

The study revealed that the homoeopathic medicine cholesterinum has an effective action in reducing the cholesterol levels in the patients with hypercholesterolemia.

FUNDED BY

Short term Research Grant f. or UG students - Rajiv Gandhi University Of Health Sciences, Karnataka.

ASSESSING ANTIBIOFILM ACTIVITY OF MOTHER TINCTURES OF CALENDULA OFFICINALIS AND ECHINACEA ANGUSTIFOLIA IN COMPARISON WITH CHLORHEXIDINE GLUCONATE - AN INVITRO STUDY

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INTRODUCTION :

Biofilms are a complex aggregation of microorganisms growing on various surfaces which are resistant to antimicrobials and also to the host immune system clearance due to which they are responsible for causing a broad range of chronic diseases. *Pseudomonas aeruginosa* and *Staphylococcus aureus* are most commonly seen in highly persistent biofilm-related wound infections, and are responsible for over 80% of the 100,000 limb amputations carried out on diabetic patients in each year. Consequently the development of biofilm eradication agents in wound management has become a fundamental area of research.

MATERIALS & METHOD :

Microbial isolates of *Staphylococcus aureus* and *Pseudomonas aeruginosa* from stock cultures of Microbiology lab of Father Muller Medical College Hospital were used in the study. The Microtitre plate method was used to grow the isolates in 96 well plates for quantitative measurement of biofilm. The procedure was repeated by incubation of isolates with chlorhexidine gluconate, ethanol, Calendula mother tincture and Echinacea mother tincture individually. The absorbance was read on a spectrophotometer at 620 nm OD(optical density).

Interpretation of results of Microtitre Plate method was –

OD Value of : <0.120 : Non – biofilm formation

0.120 – 0.240 : Moderate biofilm formation

>0.240 : Strong biofilm formation

And the percentage of biofilm inhibition was calculated using the following formula :
[(OD untreated – OD treated)] / OD untreated]*100

RESULTS :

The results showed the maximum degree of antibiofilm activity through inhibition of biofilm formation by Calendula officinalis mother tincture on Staphylococcal strains. Echinacea mother tincture showed moderate degree of antibiofilm activity whereas Chlorhexidine gluconate did not show any antibiofilm activity on staphylococcal strains. Calendula mother tincture, Echinacea mother tincture and Chlorhexidine gluconate did not exhibit any antibiofilm activity through biofilm inhibition in *Pseudomonas aeruginosa* strains.

CONCLUSION :

Homoeopathic mother tinctures of Calendula officinalis and that of Echinacea angustifolia are both effective in inhibition of biofilm of *Staphylococcus aureus* strains. However Calendula officinalis mother tincture has shown a greater ability of inhibition than that of Echinacea angustifolia mother tincture. At the same time neither of the two mother tinctures have shown inhibition of *Pseudomonas aeruginosa* strains and Chlorhexidine gluconate has not shown any inhibitory effects on biofilms in both the organisms.

FUNDED BY :

Father Muller Research Centre, Short Term Student Research in Homoeopathy, Central Council for Research in Homoeopathy.

A RETROSPECTIVE STUDY ON DYSLIPIDEMIA USING SCORE CVRC – BEFORE AND AFTER HOMOEOPATHIC TREATMENT

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Guide name : Dr Arun Varghese



INTRODUCTION

Dyslipidemia is an established risk factor for cardiovascular diseases (cvds). Drug treatment for hyperlipidemia is necessary for reducing cardiovascular risks and strokes. We found no study assessing the cardiovascular risks of dyslipidemic patients after Homoeopathic treatment. Hence, this study.

MATERIALS & METHOD

We conducted a retrospective, non randomized observational study on 35 patients who were diagnosed with dyslipidemia. We extracted the data from the case records using medical record abstraction form, and assessed the cardiovascular risk using the cardiovascular risk chart recommended by the European guidelines on cardiovascular disease prevention in clinical practice. We performed the paired t test: to assess whether Homoeopathic intervention reduced the risk of getting cardiovascular diseases, and to assess whether Homoeopathic intervention reduced serum lipid value of dyslipidemic patients.

RESULTS

We observed significant decrease in the risk of getting cardiovascular diseases (p value = 0.0140). Moreover, we observed decrease in all the serum lipid values. However, we did not observe increase in the value of serum high density lipoprotein.

CONCLUSION

Homoeopathic treatment of dyslipidemia might be effective in reducing the serum lipid levels and reducing the risk of cardiovascular diseases. Prospective studies with larger sample size and appropriate study design are warranted to further evaluate our observations.

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ASSESSING IMPROVEMENT IN THE TREATMENT OF ASTHENOPIA BY RUTA GRAVEOLENS 200C IN COMPUTER VISION SYNDROME

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INTRODUCTION

Digital device usage has increased substantially in recent years across all age groups, so that extensive daily use for both social and professional purposes is now normal. Digital eye strain(DES), also known as computer vision symptoms(CVS), and estimates suggest its prevalence may be 50% or more among computer users. The current management suggested ergonomic practices.

This study is mainly based on the action of Ruta in asthenopia due to CVS.

MATERIALS & METHOD

The subjects were selected from the patients who reported to the OPD of our hospital.

Sample size of 12 subjects per treatment

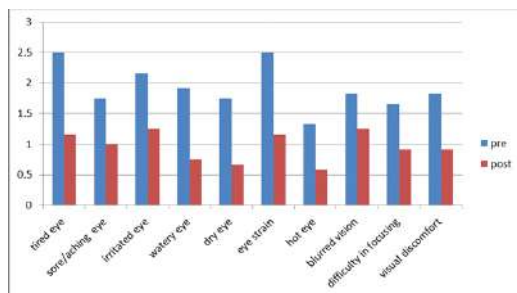
Modified asthenopia questionnaire was the tool used.

Subjects who fulfilled the inclusion and exclusion criteria were chosen.

RESULTS

Twelve patients were enrolled for this study. Ten items of Modified Asthenopia questionnaire were administered before and after treatment with Ruta graveolens in the 200th potency and assessed for changes.

According to the statistics, sore/aching eye and blurred vision doesn't show significant changes pre&post treatment.



CONCLUSION

Ruta graveolens 200C is a very effective remedy in CVS out of the 10 symptoms in the modified asthenopia questionnaire after analyzing the pre and post treatment survey of all the 12 subjects, there was found significant changes in the intensity of 8 symptoms out of 10.

FUNDED BY

Father Muller Homoeopathic Medical College, Short Term Student Research in Homoeopathy, Central Council for Research in Homoeopathy.

A STUDY TO DETERMINE BIODYNAMIC ACTION OF SULPHUR 6C, 30C, 200C IN ROOT DEVELOPMENT OF SPINACIA OLERACEA BY DEEP WATER CULTURE HYDROPONIC SYSTEM USING SEAWEED SOLUTION



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INTRODUCTION

Homoeopathy is an empirical science constructed by Dr Hahnemann, on the law of 'Similia Similibus Curentur'. Its extent into agriculture will help in re-establishing the ecological equilibrium. Experiments on efficacy of homoeopathic remedies on plants uplifts the system to a higher degree.

One of the modern agricultural practice is 'Hydroponics' (Hydro-water; Ponics-labour), a technique of soilless cultivation. Among different techniques, Deep Water Culture (DWC) is widely used as it is a simple, inexpensive design. In this method, plants are grown by suspending roots in nutrient solution at an optimum temperature and pH(1). It is best suited for root growth as it can expand maximum with abundance of oxygen and nutrients (2). Conventionally, a nutrient solution is added into water for meeting its growth requirements. In this study, liquid seaweed solution was used, a phyto-stimulatory collection of enzymes and micro-nutrient in fully compounded form(3).

Spinacia oleracea (Spinach) is an important annual crop grown around the globe. Warm, dry climate at a range of 45-70°F and a pH of 5.5-6.5 is required for its growth. The plant attains its maximum growth within 45-50 days. The roots are an essential part of this study aiding in uptake of nutrients and offers preferable growth(4,5).

Sulphur (Brimstone), is a yellow, gritty powder with displeasing odour, insoluble in water and alcohol. Homoeopathically, sulphur is prepared by Trituration using Class VII (old method) and can be a substitute to chemical nutrient in improving growth and health of the plant. As stated by Agro-homoeopathy repertory, Sulphur is indicated in certain nutrient deficiencies like Calcium, Copper, Magnesium, Molybdenum, and Potassium which are essential for healthy roots(6,7,8).

Hence, this study is taken to know the action of Sulphur in different potencies in the root development of the plants grown hydroponically.

MATERIALS & METHOD

Type of Study: The type of study done was interventional study.

Materials Required:

Test potencies: Respective Back potencies of Sulphur 6C, 30C, 200C (i. e. , 5C, 29C, 199C) procured from Good Manufacturing Practice (GMP) certified Homoeopathic Manufactory and dispensing alcohol.

Negative control group: Dispensing alcohol and distilled water.

DWC Hydroponic system: large container, thermocoal sheet, air pump, air stone, air line tubing, 3 inch net pots, coco coir, expandable clay balls, seaweed solution, pH testing kit, purified water.

Seeds: Good quality seeds of *Spinacia oleracea* procured from an authorized dealer.

Procedure:

- The required test potencies (Sulphur 6C, 30C, 200C) was prepared from the respective back potencies (Sulphur 5C, 29C, 199C) as per Hahnemannian method by mixing 1 part of back potencies with 99 parts of dispensing alcohol and followed by 10 strong downward successions. The test potencies was prepared from the Back potencies so that the alcohol concentration in the prepared medicine was reduced, as to not alter the action of the medicine.
- 60-70 good quality seeds was procured from an authorised dealer and it was randomly divided into six groups each containing 10 seeds as follows:
(n=number of plants grown in each group) Group A Distilled water; n=10
Group B Distilled water + Dispensing alcohol (2ml); n=10
Group C Distilled water + seaweed solution (2ml); n=10
Group D Distilled water+ Sulphur 6C (2ml) + seaweed solution (2ml); n=10
Group E Distilled water+ Sulphur 30C(2ml) +seaweed solution (2ml) ; n=10
Group F Distilled water + Sulphur 200C (2ml) + seaweed solution (2ml); n=10
- The seeds were pre-soaked overnight in water and placed in a moistened coco coir and was allowed to germinate until it attains a 5-7 leaves stage, for 10 days.
- All the groups (Group A, B, C, D, E, F) were filled with sufficient amount of distilled water. Temperature and pH was maintained at 70-85°F and 5.5- 6.5 respectively. pH was calculated using a pH testing kit.
- Group A was kept unaltered. Group B was given 2ml of dispensing alcohol. Group C was given 2ml of seaweed solution. Group D was given 2ml of sulphur 6C and 2ml of seaweed solution. Group E was given 2ml of sulphur 30C and 2ml of seaweed solution. Group F was given 2ml of sulphur 200C and 2ml of seaweed solution on alternative days.
- Thereafter, the seedling along with coco coir was shifted into the net pot containing clay balls which was fitted into the nutrient media.
- Then, an air pump was connected to an air stone through tubing for ample oxygenation. The air stone produced air bubbles which was sufficient for adequate aeration.
- The growth was observed for a period of 50 days from 23rd may till 10th july. Root analysis was done every 10 days (on 10th june, 20th june, 30th june, 10th july) to know the rate of growth(9,10).

Analysis of Root Growth: *Spinacia oleracea* is known to have deep tap root with excessive branches. Roots of the plants were analysed for fresh weight, dry weight of root, and length of shoot and root.

1. Root and Shoot Length Measurement:

- Plants were removed from the growing medium and were blotted using a paper towel to remove any free surface moisture.
- Shoot and roots were separated and length of each was measured using a scale.

2. Measuring Fresh Weight of The Root:

- After measuring the length, fresh weight of the roots were measured using a weighing scale.

3. Measuring Dry Weight of The Root:

- Once fresh weight was measured, the roots were dried in an oven set at 80°C until the materials obtain a constant weight and the dry weight of the root were noted down(11).

RESULTS

The data obtained in the study on root development of *Spinacia oleracea* by different potencies of Sulphur in comparison to distilled water, dispensing alcohol, seaweed solution, was analyzed using Kruskal Wallis Test. It was found that, at the beginning all the groups had approximately the same growth results, but later it was found that plants treated with potentized homeopathic medicine, Sulphur showed a significant difference on contrast to the control groups. Also, the lower potencies of Sulphur have manifested finer results on the root growth than the higher potencies. For the most part, plants treated with Sulphur 6C, capitulate the highest.

CONCLUSION

Hydroponics is a system in which growth can be achieved much faster than in soil in a limited space, also where soil is unsuitable. When homeopathically prepared medicine is combined with this modern agriculture technique, it permits the auto-regulative adaptation for bigger yields and reduced plant diseases.

The study was done on 60 seeds of *Spinacia oleracea*. Sulphur potencies 6C, 30C, 200C, Distilled water, Dispensing alcohol, Seaweed solution was considered for the study. The results were analyzed using ANOVA scale and it was perceived that Sulphur 6C showed a better out-turn on root development compared to other groups.

More detailed study in the field of agro homeopathy would be a beneficial contribution, where biodynamic preparation of Sulphur can be used in achieving a good root development which in succession would increase the growth and yield of the whole plant.

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EVALUATION OF ANTIOXIDANT POTENTIAL OF HOMOEOPATHIC MOTHER TINCTURES; OCIMUM SANCTUM, AZADIRACHTA INDICA, TERMINALIA ARJUNA, CENTELLA ASIATICA & HOLARRHENA ANTIDYSENTERICA USING DPPH FREE RADICAL SCAVENGING METHOD



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INTRODUCTION

Oxygen is an element indispensable for life. When cells use oxygen to generate energy, free radicals are created as a consequence of ATP production by mitochondria. Free radicals are molecules with one or more unpaired electrons. These by-products are generally reactive oxygen species (ROS) as well as reactive nitrogen species (RNS). They play both beneficial and toxic effects. The balance between their antagonistic affect is an important aspect of life. At moderate level, ROS and RNS exert beneficial effect on cellular response and immune function. At high concentration, they generate oxidative stress, a process which seriously alter cell membrane and other structures such as proteins, lipids, lipoproteins and deoxyribonucleic acid. Oxidative stress occur when cells cannot destroy the excess of free radical. As a result, the proteins will lose their enzyme activity. Oxidative damage to DNA leads to the formation of different oxidative DNA lesions which can cause mutations, that causes cancer initiation, which are associated with chromosomal defects introduced by free radicals. In order to manage this situation, the body counter act by producing antioxidants which are either naturally produced or supplied antioxidants act as “free radical scavengers” by preventing and repairing damages caused by ROS and RNS and therefore it can enhance the immune defense and lower risk of cancer and degenerative diseases.

Many Homoeopathic medicines are found to possess free radical scavenging property, but not completely verified. Thus this study aims to explore the free radical scavenging properties of certain Homoeopathic mother tinctures like; Ocimum sanctum, Azadirachta indica, Terminalia arjuna, Centella asiatica, Holarrhena antidysenterica which are commonly used for treatment of cancerous and inflammatory conditions.

MATERIALS & METHOD

Materials

- Drugs: Homoeopathic mother tinctures of Ocimum sanctum, Azadirachta indica, Terminalia arjuna, Centella asiatica and Holarrhena antidysenterica were procured from a GMP certified Homoeopathic manufactory.
- 2,2-diphenyl-1-picrylhydrazyl (DPPH) was procured from an authorized chemical distributor.
- Ascorbic acid of GR grade was procured from an authorized chemical distributor.
- Purified water was be procured from a GMP certified Homoeopathic manufactory.
- Ethanol (90%) was procured from a GMP certified Homoeopathic manufactory.

Methodology

The study samples were divided into 8 groups as follows:

Sample 1: Ascorbic acid + DPPH solution

Sample 2: Ocimum sanctum + DPPH solution
Sample 3: Azadirachta indica + DPPH solution
Sample 4: Terminalia arjuna + DPPH solution
Sample 5: Centella asiatica + DPPH solution
Sample 6: Holarrhena antidysenterica + DPPH solution

DPPH Free Radical Scavenging Activity :

The principle for the reduction of DPPH free radical is that the antioxidant reacts with stable free radical (DPPH) and converts it to 1,1-diphenyl-2-picryl hydrazine. The ability to scavenge the stable free-radical DPPH is measured by change in the absorbance at 517nm.

The samples were prepared in triplicate for each analysis and mean value of absorbance is calculated. Standard curve was drawn using Ascorbic acid. The test samples were diluted to obtain concentrations of 20, 40, 60, 80 and 100 µg/ml. 1ml of diluted solutions were mixed with 3ml of methanolic solution of DPPH with a concentration of 1µg/ml. After 30 minutes of incubation in darkness at room temperature (25°C), the absorbance (Abs) was recorded at 517nm using Merck Spectroquant Prove 600 UV-visible spectrophotometer at NITTE Gulabi Shetty Memorial Institute of Pharmaceutical Sciences Paneer, Mangalore. Control samples contained all the reagents except the mother tincture.

The scavenging activity percentage (AA%) was calculated using the formula

$$AA\% = ((\text{Abs of control} - \text{Abs of sample}) \times 100) / (\text{Abs of control})$$

RESULTS

The study reveals that the homoeopathic mother tinctures of Ocimum sanctum, Azadirachta indica, Terminalia arjuna, Centella asiatica and Holarrhena antidysenterica definitely has an antioxidant activity, almost equivalent to the standard, Ascorbic acid.

CONCLUSION

Naturally occurring compounds are always safer than synthetically prepared ones in the treatment of diseases. In conditions where tissue damage has taken place due to chemical free-radicals, it would be better to use herbal extracts. Thus, identifying the potential of homoeopathic preparations for the same is essential. In the current study, the Homoeopathic preparations have demonstrated a promising free radical scavenging activity. More studies need to be done in the field, to identify better antioxidant herbal preparations.

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COMPARATIVE STUDY ON EXTRACTIVE PROPERTIES OF WATER, ETHYL ALCOHOL AND GLYCERIN ON ARNICA MONTANA



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Guide name : Dr Mini IV

INTRODUCTION

Dr Hahnemann has advanced Homoeopathy on the famous Hippocratic concept that disease might be caused by opposites/similar by his theory of 'similia similibus curentur', 'let likes be cured by likes. [1]

Homoeopathy is the therapeutic mode of symptom similarity in the field of medicine, with a holistic approach towards the sick person and treats the patient's disturbances on the emotional, mental and physical levels in an integrated manner

Homoeopathic medicines are produced from different sources i. e. , plant kingdom, animal kingdom, chemical kingdom, nosodes, sarcodes, imponderabilia, synthetic source or tautopathy. Plants are the largest source of homoeopathic medicine, 65% of the remedies are prepared from plants.

MATERIALS & METHOD

Materials:

Crude drug (Arnica Montana)	Chemical balance	China dish	Measuring cylinder
Amber glass bottle	Macerator	Ethyl alcohol	Distilled water
Glycerin	Test tubes	Spatula	Filter paper

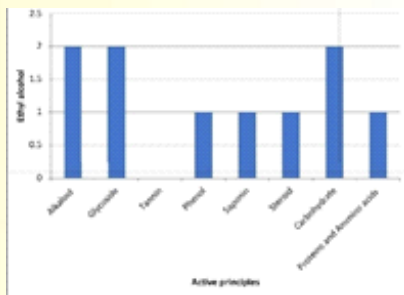
Methodology:

Arnica is fairly a well-known popular medicine available as flower essence, homoeopathic remedy as well as in herbal form. It is used to soothe muscle ache and reduce the inflammation that is caused by a blow, a fall or a contusion. It is primarily used externally and it is a well-known homoeopathic remedy for muscle strain and soreness. Active components in Arnica are Sesquiterpene lactones that are known to reduce inflammation and decrease the pain, thymol, flavonoids, inulin, carotenoids and tannins, Anti-inflammatory effect are attributed to helenalin, whose actions include antiedemic effect that has been confirmed in experimental models.

The following analysis have conducted on each extract solution:

- Phytochemical screening
- Determination of Total extractive value
- Test for alkaloids
- Test for glycosides
- Test for tannin
- Test for phenols

RESULTS



CONCLUSION

Present study is a comparative study to find the best solvent for extraction of phytochemicals from drugs.

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AN OBSERVATIONAL STUDY TO ASSESS THE EFFICACY OF CEANOTHUS AMERICANUS 6C IN TREATMENT OF SEBORRHEIC DERMATITIS USING VISUAL ANALOGUE SCALE

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Guide name : Dr Rita Chakraborty



INTRODUCTION :

Seborrheic dermatitis is a common inflammatory condition of skin, where high density of sebaceous glands is present. Cause is unknown, but species of *Malassezia*, a normal skin yeast play an important role. It is a common dermatological problem mainly affect in scalp and it also seen in face and upper part of chest. It affects atleast 3% - 10% of the population and causes itchy scalp with greasy flakes on scalp. It can affect the patient without any age limit, but condition is mostly seen in infants within the first 3 months of life and adults at 30 – 60 years of age. Men are more susceptible than women. The common treatment approaches involve uses of topical antifungal and anti-inflammatory agent applications but in severe conditions this treatment are seen to be not responds properly. Homoeopathic system also helps in the treatment of seborrheic dermatitis. There are many Homoeopathic medicines which helps in treating seborrheic dermatitis. *Ceanothus Americanus* is one of the Homoeopathic remedy seems to be having antimicrobial and anti-inflammatory actions which can help in treating seborrheic dermatitis. Therefore in this study an attempt is made to analyse the efficacy of *Ceanothus Americanus 6C* for the treatment of Seborrheic dermatitis.

MATERIALS & METHOD

Source of Data:

The 32 subjects for the study will be enrolled from the OPD, IPD and peripheral centers of Father Muller Homoeopathic Medical College and Hospital, Deralakatte, Mangalore as per the inclusion criteria.

Inclusion Criteria:

The patients of both the sexes above 20 yrs of age. Patients with clinically diagnosed cases of seborrheic dermatitis. Patient who will be prescribed *Ceanothus Americanus 6C* by the treating physician.

Exclusion Criteria:

If any of the patients suffering from psoriasis, tinea capitis, and immunodeficiency. If the participant was currently using antibiotics or antimycotics the participant was excluded.

RESULTS :

Based on the study conducted on 32 patients who are diagnosed with seborrheic dermatitis, 29 patients has shown improvement and 3 patients not shown any improvement after analysis of symptoms by using visual analogue scale before and after treatment of seborrheic dermatitis with *Ceananthus Americanus 6c*.

On performing paired t test with the Visual analogue scale in patients of Seborrheic dermatitis, score of the 32 subjects before and after medication with *Ceananthus Americanus 6c*. The P value is less than 0. 0001.

CONCLUSION :

From this observational study we can conclude that *Ceananthus americanus 6c* has effect on seborrheic dermatitis.

FUNDED BY:

Dr M L Dhawale Memorial Student Research Project - Father Muller Homoeopathic Medical College.

EVALUATING THE ANTI-BACTERIAL EFFECTS OF ECHINACEA ANGUSTIFOLIA MOUTH WASH AGAINST PATHOGENS CAUSING PHARYNGITIS

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INTRODUCTION

Pharyngitis is the inflammation of the mucous membranes of the oropharynx. In most cases, the cause is an infection, either bacterial or viral. About 50% to 80% of pharyngitis, or sore throat, symptoms are viral in origin and include a variety of viral pathogens. More severe cases tend to be bacterial and may develop after an initial viral infection.

Bacteria and viruses can cause direct invasion of the pharyngeal mucosa. In almost all cases, there is a local invasion of the pharyngeal mucosa which also results in excess secretion and edema.

Most common manifestations of pharyngitis include pain, dryness, irritation, and scratchy feeling anywhere in the throat. Pain becomes worse when one swallows. Pharyngitis symptoms may also be part of the symptom complexes of other serious illnesses, including peritonsillar abscess, retropharyngeal abscess, epiglottitis, and Kawasaki disease.

Echinacea angustifolia is used routinely in homoeopathy to treat conditions of acute autoinfection, symptoms of blood poisoning, upper respiratory tract infections, skin infections and generally septic conditions.

The Echinacea are reported to boost the immune system, which aids the body to fight off the infection, thereby hastening the recovery process (Murphy, 1995).

The main indications of Echinacea are the prevention and treatment of common cold, flu and upper respiratory infection. Later on, stimulation of immune cells such as macrophages, other monocytes and natural killer cells have also been demonstrated in vitro. The clinical evidences available on Echinacea derivatives have been recently reviewed by Barrett. The globality of the data tentatively supports the use of these preparations in the treatment of acute URIs, which corresponds with the most widespread utilization.

Various Materia medica state the benefits of antiseptic wash of Echinacea

- William Boericke in his *New Manual of Homoeopathic Materia Medica with Repertory* under Echinacea angustifolia states that it is used 'locally, as a cleansing and antiseptic wash.'⁷
- While Dr S. K. Phatak in his *Concise Materia medica of Homoeopathic Remedies*, under Echinacea explains it as a 'Valuable local cleansing agent and antiseptic wash.'

Thus, an In-vitro study is taken up to evaluate the effectiveness of the aqueous mouth wash of Echinacea angustifolia in patients of pharyngitis with throat pain to assess the bacterial growth.

MATERIALS & METHOD

Approval of the Institutional Ethics Committee of Father Muller Charitable Institution was obtained before the initiation of the project, and the procedures followed were in accordance with the ethical guidelines for biomedical research provided by the Indian Council of Medical research, New Delhi. Informed consent was obtained from each

individual before the screening. Patients attending the outpatient department of Fr Muller Homoeopathic Hospital, Fr Muller Homoeopathic Hospital extension in St Antony's ashram were chosen for the study. Approximately 20 patients were screened to ensure enrollment of which 15 patients were selected based on inclusion and exclusion criteria.

Inclusion Criteria

- Patient with throat infection along with pain in the age group of 18 to 50
- Patient with only upper respiratory tract infection without any complication

Exclusion Criteria

- Patient already on any treatment for same complaints
- Patient with any other illness involving respiratory system

Purposive sampling method was followed and the subjects fulfilling the inclusion criteria were included in the study. Throat swabs were collected for culture in blood and meconium agar. Physician then prescribed the Echinacea angustifolia aqueous mouth wash for 4 days, twice a day. (Echinacea mouth wash was prepared by adding 10 to 15 drops of Echinacea angustifolia in half cup of warm water.)

These subjects were asked for follow up after a 4 days, throat swabs were again collected to substantiate changes in the bacterial growth by semiquantitative analysis.

Matrix-assisted laser desorption/ionization (MALDI) for identifying the strain of bacteria. MALDI Imaging mass spectrometry has unique advantages for analyzing tissue specimen in an unprecedented detail. (MALDI) has led the way in the development of biological and clinical applications for Imaging mass spectrometry. 10,11

Magnitude of the pain due to pharyngitis was assessed, using the verbal analog pain scale, 12 evaluating the effectiveness of mouth wash in reducing the pain before and after treatment.

Criteria for deciding the efficacy of Homoeopathic drug was based on following parameters:

- Changes in bacterial count before and after the treatment.
- Changes in pain scale before and after the treatment

RESULTS

We found evidence of anti-bacterial activity against few bacteria cultured from the patients through semiquantitative analysis : Staphylococcus aureus, Streptococcus salivarius, Neisseria flavescens, Klebsiella pneumoniae, Streptococcus oralis, but statistically it did not show any significant changes

But we found there was significant evidence of mouth wash reducing the pain due to pharyngitis. $p = 0.001$.

CONCLUSION

Then study showed that Echinacea mouth wash having antibacterial property was not effective in reducing growth of all strains of bacteria ($p > 0.05$) but it was observed to be effective in reducing the intensity of pain in pharyngitis.

Thus, I can conclude that the aqueous solutions of Echinacea angustifolia may be considered as a choice for reducing throat pain in Bacterial Pharyngitis.

FUNDED BY

Dr M L Dhawale Memorial Student Research Project - Father Muller Homoeopathic Medical College.

A SYSTEMATIC REVIEW ON THE EVOLUTIONARY CONCEPT OF MIASM FROM THE HAHNEMANNIAN PERSPECTIVE TO THE MODERN PERSPECTIVE

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Guide name : **Dr Rakhal**



INTRODUCTION

Concept of miasm found its space in homoeopathy as a solution to the cause of disease. Miasms are dynamic disease producing powers which pollute the human organisms and produce all possible diseases. Dr Hahnemann in his work 'The Chronic Diseases-their peculiar nature and their Homoeopathic cure, introduces miasm as the cause of Chronic diseases. Ever since this concept of miasm came into existence, Hahnemann had to encounter many challenges in its clarity as well as accuracy. Philosopher J. H. Allen in his book, 'The Chronic Miasm with Repertory' states those oppositions as:

1. First from the pathological therapists who seek for the materialistic cause of disease.
2. Second from the therapists of symptomatology who focuses on totality of symptoms without giving importance to any chronic miasm lying behind.

Here lies a research gap. Stalwarts brought individual interpretations to this controversial concept.

MATERIALS & METHOD

Methods:

i. Eligibility Criteria: Literary works on miasmatic concepts by Homoeopathic stalwarts-the revolutionary contributors to Homoeopathy, considering from Hahnemannian to Post Hahnemannian era.

Rationale :To explore different ideas explaining miasmatic concept.

Language : Language considered is English.

ii. Information Sources: Data is selected on the basis of eligibility criteria using Google Scholar, library of FMHMC, Digital library-Encyclopedia Homoeopathica.

iii. Study Selection: Search and selection is carried out by placing the eligibility criteria as the strategy. The titles and abstracts are re-evaluated to make sure that they are in accordance with the eligibility criteria of this study. All the literary works that are considered not relevant and also with unclear objectives are excluded. The result is reported in a PRISMA flow diagram. Key words used as search strings-Evolution and Miasm.

iv. Data Collection Process: The method of data extraction followed is the piloted form with an Inclusion Criteria.

Inclusion Criteria: 1. Viewpoint of stalwarts on miasm, mentioned in their literary works.

2. Innovative ideas on modern miasmatic concepts mentioned in Academic Articles.

After the pilot study, the academic articles were found to be vast in number, making it out of time-bound to sort the innovative ideas. So the research was confined to books on miasmatic concept authored by Homoeopathic stalwarts falling under the eligibility criteria.

RESULTS

i. Study Selection : Using 'PRISMA' flow diagram, the number of studies screened, number of studies assessed for eligibility and number of studies included in the review, with reasons for exclusion at each stage are mentioned.

ii. Study characteristics: Literature that fulfil the Inclusion Criteria were considered for data extraction. After the pilot study, seven books on miasmatic concept authored by Homoeopathic stalwarts. References of the data extracted are mentioned below:

1. The Theory of Chronic Disease by Dr Samuel Hahnemann
2. Lectures on Homoeopathic Philosophy by Dr J. T. Kent
3. The Principles and Art of Cure by Homoeopathy by Dr H. A. Robert
4. Notes on the Miasms by Dr P. S. Ortega
5. Miasmatic Prescribing by Dr S. K. Banerjea
6. Indications of Miasm by Dr Harimohan Choudhury
7. The Soul of Remedies by Dr Rajasankaran

iii. Synthesis of Results : The viewpoint of above mentioned authors on the concept of miasm is collected based on study characteristics results:

CONCLUSION

The study has shown variations in the origin, classification, symptomatology, approach of understanding, interpretation, consideration of the totality and in the chief remedy selection of miasmatic approach. These variations have brought evolutionary changes in miasmatic concept from Hahnemannian to modern perspective conclusions:

the study has shown variations in the origin, classification, symptomatology, approach of understanding, interpretation, consideration of the totality and in the chief remedy selection of miasmatic approach. These variations have brought evolutionary changes in miasmatic concept from hahnemannian to modern perspective.

FUNDED BY

Dr M L Dhawale Memorial Student Research Project - Father Muller Homoeopathic Medical College.

A STUDY TO COMPARE THE EFFECT OF ETHANOL PRESENT IN HOMOEOPATHIC PREPARATIONS ON SEED GERMINATION USING VIGNA RADIATA

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INTRODUCTION

In the earlier centuries, homoeopathy alternates with the placebo controversy according to various literatures. As time passed by many people came up with a variety of theories to prove the authenticity of homoeopathic preparations. To nullify the placebo controversy many pioneers approached with the concept of plant studies. Though the instructions to dosage were not clearly stated, various plant studies were done using a varying range of remedies of different potencies. Direct exposure of alcohol on plants leads to growth inhibition, chlorosis of leaves, stunted growth of plants, etc. Homoeopathic preparations (hydro alcoholic solutions) are used for a large variety of plant studies including root development, germination, shoot development, leaf growth, etc but the effect of alcohol present in the preparations on the plant is not evaluated. So in this study we attempt to evaluate the action of homoeopathic medicines on plants with respect to germination (using Kali sulphuricum, which is prepared from Potassium sulphate that contains two macronutrients required for seed germination and plant growth) and to study whether the alcohol present in it is impacting the germination using Vigna radiata seeds.

MATERIALS & METHOD:

There were eight groups based on the intervention on the seeds. Each group contained 25 seeds of Vigna radiata[10] which were placed in rolled paper towels. The materials for intervention are Kali sulphuricum 12C (alcoholic potency), Kali sulphuricum 30C (alcoholic potency), Kali sulphuricum 200C (alcoholic potency), Kali sulphuricum 12C (liquid potency), Kali sulphuricum 30C (liquid potency), Kali sulphuricum 200C (liquid potency), 90% Ethanol and distilled water. The seeds were soaked in the respective material for intervention. The medicated rolls were left undisturbed for 24 hours and allowed to germinate. Number of seeds germinated, number of root and length of root was measured under room temperature in natural conditions. The data obtained was statistically analysed using ANOVA in SPSS software.

RESULTS:

After a detailed statistical analysis using ANOVA scale and comparison of the results obtained, the following were inferred. Statistical analysis have shown that there is considerable difference in the germination of seeds using water (positive control) and liquid potencies when compared to ethanol (negative control) and alcoholic potencies. A significant number of seeds did not germinate when alcoholic potencies were utilized. Along with the germination of seeds there is also a considerable difference in the root length of the seed. On an average the root length was longest in distilled water when compared to other groups. When comparing the groups other than the control, Kali sulph 12C (liquid potency) was found to have the longest average root length.

CONCLUSION:

Kali sulphuricum in its water potencies has a considerable effect in promoting root length of Vigna radiata when compared to alcoholic potencies. Kali sulphuricum 12C is found to promote root length when compared to other potencies.

FUNDED BY:

Dr M L Dhawale Memorial Student Research Project - Father Muller Homoeopathic Medical College.

A RETROSPECTIVE STUDY TO CATALOGUE THE SYMPTOMATOLOGY AND CLINICALLY INDICATED HOMOEOPATHIC REMEDIES IN THE TREATMENT OF MILD TO MODERATE CASES OF COVID -19

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INTRODUCTION :

Coronavirus disease 19 or COVID-19 is caused by SARS-CoV-2 virus, which is a newly emergent coronavirus that was first recognized in Wuhan (China) in December 2019. Most patients show respiratory symptoms, though some progress to severe conditions like acute respiratory distress syndrome (ARDS) and multi-organ failure. Transmission can occur through contact with infected people through respiratory secretions and fomites and has an incubation period is 27 days.

Homoeopathy is observed to be a safe and viable therapy for the control of COVID-19 symptoms, as scientific evidence has proven its benefits through clinical trials. This retrospective study is aimed to analyze 151 case records of patients with mild to moderate symptoms of COVID-19 and compile the symptomatology and the clinically indicated homoeopathic remedies effectively used for its treatment.

MATERIALS & METHOD :

- Cases of COVID-19 diagnosed with Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) assay of nasal and pharyngeal swab specimens who were treated on an in-patient basis at a reputed Homoeopathic medical college hospital from January 2020 to December 2021 was the study group.
- The patients with a positive RT-PCR for SARS-Cov-2 admitted in the In-Patient Department of a reputed Homoeopathic medical college hospital with mild to moderate degree of severity was included in the study. Asymptomatic cases and drop out cases or incomplete cases without follow ups and adequate information were excluded. 151 cases fulfilled the above criteria and was used for this study.
- The necessary data of these cases was obtained in the Case Study Form from the case records of the hospital. The required information for the study was collected using a Case Study Form which contained 2 parts:
 1. Part one - demographic data (case number, gender, age, place, date of admission, oxygen saturation, severity and co-morbidity)
 2. Part two - symptomatology, medicine prescribed, prognosis, days required for improvement.
- The data recorded in the case study form was categorized based on the system involved and their Homoeopathically selected medicines were listed out.

RESULTS :

Out of 151 cases, 148 of them improved after treatment, while 3 cases were not improved and were referred. The average days taken for improvement was 5.8 days. There were 34 remedies that proved its usefulness in the treatment of COVID-19 cases. The top 5 remedies were Bryonia, Ferrum Phosphoricum, Arsenicum Album, Natrum mur and Kali Muriaticum.

CONCLUSION :

There were 33 different symptoms found in patients with COVID-19 disease. This included dry cough, fatigue, fever, headache, loss of smell, coryza, myalgia, 34 different homoeopathic remedies proved its usefulness in treatment of COVID-19. The list includes Bryonia, Ferrum Phosphoricum, Arsenicum Album, Natrum mur, Kali Muriaticum. This study helped to find out the various clinical presentations including rarely occurred symptoms of COVID-19. The list of various clinically indicated remedies in the treatment in the mild to moderate cases of COVID-19 was also identified. Thus, this study has significantly contributed to the literature knowledge about COVID-19 disease and its homoeopathic management.

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MULLER'S YOUNG RESEARCHER AWARD 2023



Ms Anna Johnson, Final BHMS for her topic titled, “An observational study to assess the efficacy of olfactory mode of administration of arundo mauritanica 6c for acute allergic rhinitis using total nasal symptoms score”

POTENTIA 2023 PRIZE WINNERS

Paper Competitions



1st prize is bagged by DR DEVI SEKAR, from Dr Gururaju Homoeopathic Medical College, Gudivada for the topic, “Repertory vs bayes’ theorem scientific assessment of an experience”



2nd prize is bagged by Ms PRERANA. K, from Bhagwan Buddha Homoeopathic Medical College, Bangalore for the topic, “A study on the efficacy of homoeopathic remedy gnaphalium polycephalum in treating sciatica”



3rd prize is bagged by DR TANAYA SOVANI from Dondumama Sathe Homoeopathic Medical College, Pune for the topic, “Knowledge attitude and practices about literary research among homoeopathic fraternity: a survey study”.

Research Poster Competition

3rd prize is bagged by MS SAI SHREYA ROY from JIMS, Hyderabad, for the topic, “An explorative study on efficacy of terminalia chebula ointment in periorbital hyperpigmentation”



2nd prize is bagged by DR PAVANI CHIDIRALA from JSPS Homoeopathic Medical College for the topic, “Homoeopathy as an add-on therapy in management of hypertension an interventional prospective open clinical trial”



1st prize is bagged by Ms PAVITHRA, from Alvas Homoeopathic Medical College, for the topic on, “A placebo controlled comparative study to know the effectiveness of belladonna 30c, 200c & 1M in the growth and flowering of andrographis paniculata”





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