

Effectiveness of Ruta Graveolens 30 CH in Management of Computer Vision Syndrome in age group of 18 to 60 Years, both sex: A Case Series.

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ABSTRACT:

Purpose: to evaluate the effectiveness of Ruta graveolens 30 CH in managing cases of Computer Vision Syndrome (CVS) in individuals aged 18 to 60 years, across both sexes, and to identify the most common symptoms of CVS within this demographic.

Method:

A case series study was conducted over six months at the OPD of Motiwala (National) Homoeopathic Medical College and camps were conducted. Data was collected through a structured questionnaire assessing symptom severity and frequency. The symptom index scale ranged from 0 (absence of symptoms) to 5 (most severe symptoms). Thirty patients on basis of eligibility criteria of age 18 to 60 years, both sex, presenting with three or more symptoms of CVS for at least one week were included. Patients with untreated refractive errors, chronic eye conditions, or those on medications affecting the study's outcome were excluded. Participants received Ruta graveolens 30 CH, administered according to individual symptomatology. Follow-ups were conducted at regular intervals to assess symptom improvement using a symptom index scale. Statistical analysis was performed using the paired t-test to evaluate the effectiveness of the treatment.

Results: The study involved a case series of 30 patients diagnosed with CVS, who presented with symptoms such as eye strain, headaches, and neck stiffness due to prolonged screen exposure. The treatment protocol included administering Ruta graveolens 30 CH along with lifestyle modifications, such as the 20-20-20 rule (taking a 20-second break to look at something 20 feet away every 20 minutes).

Statistical analysis revealed a calculated t-value of 3.88, which was greater than the table t-value of 2.05 at a 5% significance level for 29 degrees of freedom. This led to the rejection of the null hypothesis (H₀), which stated that Ruta graveolens is not effective in treating CVS.

Consequently, the alternative hypothesis (H₁) was accepted, confirming that Ruta graveolens 30 CH significantly alleviates symptoms associated with CVS.

The symptom index scores improved significantly over the course of the study, indicating that patients experienced a reduction in the severity of their symptoms. For instance, scores decreased from an average of 38/70 at baseline to as low as 11/70 by the end of the treatment period, demonstrating a marked improvement in the patients' conditions.

Overall, the findings suggest that Ruta graveolens 30 CH is an effective treatment for Computer Vision Syndrome, supporting its use in clinical practice for managing symptoms related to prolonged digital screen exposure. The study highlights the importance of both homeopathic treatment and lifestyle modifications in improving the quality of life for individuals suffering from CVS.

Key words : Computer Vision Syndrome (CVS), Ruta Graveolens 30 CH, homeopathic treatment, digital eye strain, eye strain, headaches, neck stiffness, prolonged screen exposure, 2020-20 rule, lifestyle modifications, Symptom Index Scale, statistical analysis, ocular health, visual fatigue, homeopathy in CVS management, digital device-related ocular discomfort, and eye health.

INTRODUCTION:

The ongoing pandemic of SARS-COVID-19 infection has caused tremendous stress in health care system and altered the daily lifestyle of ordinary people. Digital devices have become integral to daily life, and the prolonged use of screens has raised concerns about the impact on visual health. Episodes of lockdown and social distancing have cut face to face connections and have interrupted transportation, education, working and travelling activities. During the lockdown period, people have relied on digital devices for information and entertainment, leading to a higher risk to developing Computer Vision Syndrome ⁽¹⁾

MATERIAL AND METHODS:

The study employed a case series design, with the setting being the MHMC OPD, camps, and peripheral OPDs. The study duration was 6 months. The method of selection of study subjects was based on the eligibility criteria, which included an inclusion criteria of cases having signs and symptoms of Computer Vision Syndrome (CVS) present for at least one week or complaints of the same in the past 1 month, age group between 18 to 60 years of both sexes, patients willing to give consent, and patients who are having at least three or more symptoms of CVS during or after the use of a digital screen.

The exclusion criteria included individuals known with untreated refractive and other visual screening errors, individuals known with a history of migraine, eye allergy, frequent conjunctivitis, acute rhinitis, sinusitis, acute scleritis, or lens opacities such as cataracts, individuals with a known history of chronic neck and back complaints, and subjects who are unable to refrain from using eye drops, antihistamines, hormonal preparations such as oral contraceptives, or any other medication interfering with the outcome of the study.

The researchers utilized the case record format, analyzing scale for Computer Vision Syndrome (symptom index scale) the scale is likert type scale , self-administering questionnaire prepared by taking symptoms of CVS from previous studies for eye assessment, and Schirmer's tear test stripes as the instruments and related measurements. The sampling technique used was simple randomized sampling, with a sample size of 30 patients diagnosed with CVS.

DISCUSSION:

Objectives

The primary objective of the study was to evaluate the effectiveness of **Ruta graveolens 30 CH** in managing cases of **Computer Vision Syndrome (CVS)** among individuals aged **18 to 60 years**, across both sexes. The secondary objective was to identify the most common symptoms of CVS within this demographic.

GRAPHICAL REPRESENTATION OF MOST COMMON SYMPTOMS OF COMPUTER VISION SYNDROME

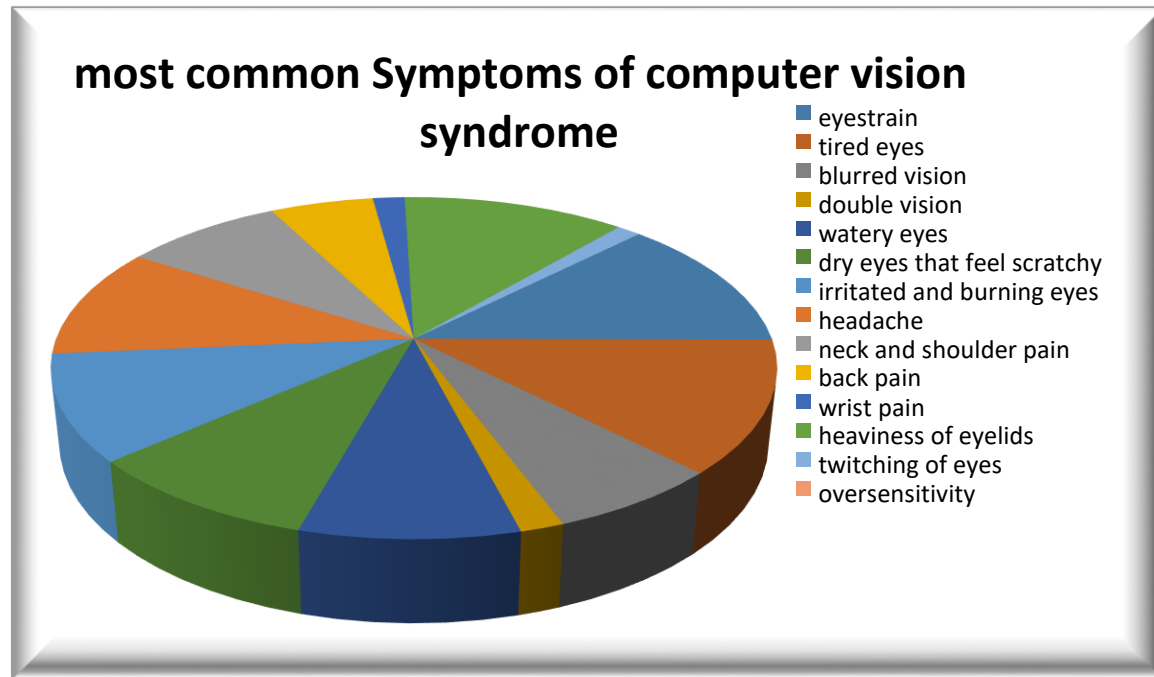
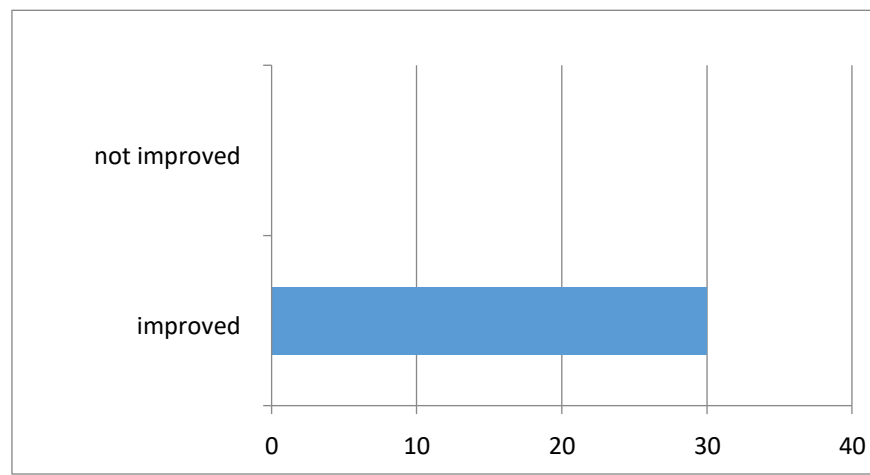


Fig 1- pie chart of most common symptoms of CVS



(on x axis- No. of patients)

Fig 2- graph of patients improved and not improved after taking Ruta 30ch for CVS

RESULTS AND INTERPRETATION

The study involved a case series of **30 patients** diagnosed with CVS, who presented with symptoms such as eye strain, headaches, and neck stiffness due to prolonged screen exposure. The treatment protocol included administering **Ruta graveolens 30 CH** along with lifestyle modifications, such as the **20-20-20 rule** (taking a 20-second break to look at something 20 feet away every 20 minutes).

Statistical analysis revealed a calculated t-value of **3.88**, which was greater than the table t-value of **2.05** at a 5% significance level for 29 degrees of freedom. This led to the rejection of the null hypothesis (H0), which stated that *Ruta graveolens* is not effective in treating CVS.

Consequently, the alternative hypothesis (H1) was accepted, confirming that **Ruta graveolens 30 CH** significantly alleviates symptoms associated with CVS.

The symptom index scores improved significantly over the course of the study, indicating that patients experienced a reduction in the severity of their symptoms. For instance, scores decreased from an average of **38/70** at baseline to as low as **11/70** by the end of the treatment period, demonstrating a marked improvement in the patients' conditions.

Overall, the findings suggest that **Ruta graveolens 30 CH** is an effective treatment for Computer Vision Syndrome, supporting its use in clinical practice for managing symptoms related to prolonged digital screen exposure. The study highlights the importance of both homeopathic treatment and lifestyle modifications in improving the quality of life for individuals suffering from CVS.

DIFFICULTIES FACED:

Several challenges were encountered during the study:

1. **Patient Compliance:** Ensuring that patients adhered to the treatment regimen and lifestyle modifications was a challenge, as many patients struggled to maintain consistent screen breaks.
2. **Variability in Symptoms:** The subjective nature of symptoms like eye strain and headaches made it difficult to standardize assessments across different patients.
3. **Sample Size:** Although the study included 30 cases, a larger sample size could provide more robust data and enhance the generalizability of the findings.
4. **Follow-Up Consistency:** Maintaining regular follow-ups was essential for assessing treatment efficacy, but scheduling conflicts and patient availability sometimes hindered this process.

Conclusion

The study successfully demonstrated that **Ruta graveolens 30 CH** is an effective treatment for Computer Vision Syndrome in adults aged 18 to 60 years. The findings suggest that homeopathic interventions can play a significant role in managing symptoms associated with prolonged digital screen use. The holistic approach of homeopathy, combined with lifestyle modifications, can improve the quality of life for individuals suffering from CVS. Future studies with larger sample sizes and more rigorous methodologies are recommended to further validate these findings and explore the long-term effects of treatment.

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