A RETROSPECTIVE STUDY ON THE EFFICACY OF HYOSCYAMUS NIGER IN BIPOLAR DISORDER

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ABSTRACT

The research was aimed to substantiate the effectiveness of Hyoscyamus niger in handling the maniac phase of bipolar disorder. Bipolar disorder is a common psychiatric condition commonly expressed through vague signs and symptoms. The symptoms vary extensively from depression to violent mania. Conventional mode of treatment lacks a proper treatment methodology. This medicine is found to be useful in the treatment of bipolar disorders due to its similarity in the symptomatology with the disease. Hyoscyamus Niger is a commonly used medicinal plant which belongs to the plant family, Solanaceae. It is widely used for medicinal purpose in alternative system of treatment such as Ayurveda and Homeopathy.

KEYWORDS: Bipolar disorder, Depression, Hyoscyamus niger, Mania, Psychiatric.

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INTRODUCTION

Bipolar disorder is considered as a major affective disorder which characterised by marked and severe mood swings (can be major depressive episodes or manic) and with a great tendency to remission and recurrence. It is a serious mental illness. The affected individual undergoes unusual mood changes. There is alteration of mood from a very elated, joyful and happy, "up," and energetic to very sad and hopeless, "down," and a non-responsive, dull and a deprived energetic state, and this continues. There are periods in which they have normal moods. The up and elevated feeling is called mania. The period of deprived activity and low feeling is
depression. The primary causation and predisposition in case of bipolar disorder is still not clear. A few studies have stated familial inheritance. Structural and functional abnormality in brain may as well contribute and have a role. The onset of the condition is seen often in the late teen or early adult years. It may affect any age group, and it includes children and adults as well, and the illness usually lasts a until the end. [1]

**Bipolar disorder classification 30 °C**

*Bipolar disorder I* is characterized as a clinical condition by one or more maniac episodes or mixed episodes alternating with mania and depression. *Bipolar disorder II* features depressive episodes which are more frequent and more intense than maniac episodes, but there is history of atleast one hypo-maniac episode. [2] *Cyclothymic disorder* can be defined as periods of hypo-maniac state along with depressive episodes persisting for a minimum period of 2 years. Inspite of this alternating state, the episodes and subjective symptoms shown by the patient fail to meet the diagnostic criteria of hypomaniac and depressive episode. [3]

In some cases, there are repetitive cycles of mania(insanity), that may present in its deepest form is associated with high and escalated psychomotor activity; outgoing personality is seen excessively; sleep deprivation; impaired judgement and impulsivity; and extravagant, grandiose and also with irritable mood. A combination of psychomotor agitation and activation with dysphoria, anxiety and irritability is seen half of the patients with bipolar disorder portray. There may be some laborious work to distinguish a combination of mania from agitated depression. The entire criteria for mania are lacking, and the required recurrent depressions are demarcated by periods of mild activation and raised energy (hypomania), in some bipolar patients (Bipolar II disorder). In cyclothymic disorder, there are many hypo-maniac intervals, with relatively lesser duration, changing with sequential clustering of hypomaniac symptoms that do not fulfil in duration and severity, to meet the requirements for major depression. The mood alterations should be for at least a span of 2 years before the diagnosis is made and must be chronic in nature.

The time taken for a maniac episode to emerge is seen ranging from a period of few days to weeks, as well there can be an onset within hours, mostly in the early morning hours. An unattended episode may be for a very short time such as several weeks or last months for
8–12 months in case of either depression or mania. In cases where there are depression and mania for four or more episodes they are described by the term rapid cycling.

Bipolar disorder is evident to have genetic predispositions from family studies and inheritance. The studies reveal involvement of multiple genes. The condition is equally distributed in both the sexes and episodes of depression are seen more in women and in men more maniac episodes are observed over a lifetime. The underlying cause and pathophysiologic mechanisms accounting for common and repetitive mood changes of bipolar disorder remain unknown. The studies report anatomical variations in amygdala and increase in the hyperintensity of white matter, according to neuroimaging. The changes at membrane level include activation of Na+ and K+ which in turn activates ATPase and there is disordered signalling with transduction of phosphoinositol system and GTP-binding proteins, which has been understood from molecular studies. [4]

**Hyoscyamus niger**

Kent says, “A state of irritability and excitability runs through the remedy”. Talking, passive, delirium, imaginations, illusions, hallucinations; talking, rousing up and talking with a delirious manifestation, and then stupor. These alternate through complaints. And talking while asleep, crying out in sleep; but, talking and mumbling and soliloquizing. Then, there are wakeful periods, where delirium is seen, illusions and hallucinations, all represented in a combination or together. [5]


**Diagnostic tool: Young mania rating scale**

The assessment and rating for mania is done through different scales and one of the most common and frequently used scale in daily practice is the Young Mania Rating Scale (YMRS) to analyse manic symptoms. The scale comprises of 11 items and the scoring is done on the basis of previous 48 hours in which there are subjective observations by the patient during the episode. Along with subjective symptoms, the other observations are purely upon the clinical
presentation at the time of visit. The core symptoms of mania were considered based on published descriptions components are selected corresponding on published descriptions of the core symptoms of mania. The Hamilton Rating Scale for Depression (HAM-D) in which each component is rated with severity is followed in YMRS. There grading is from 0 to 8 for the following four items namely, irritability, speech, thought content, and disruptive/aggressive behavior, and for the remaining seven items they are graded on a 0 to 4 scale. Incase of lack of cooperation from severely ill patients, these four items are given twice the weightage of others. Strengths of the YMRS include its most accepted usage and common application in clinical practice due to its ease in understand. [7]

MATERIALS AND METHODS

The study was conducted at Peripheral Health Centres, Karode centre for Mentally ill women, EMMAUS Rehabilitation centres at Ummancode, Mekkamandapam and also at the OPD for Psychiatry in Sarada Krishna Homoeopathic Medical College, Kulasekhararam. The study population included 30 cases based on the inclusion and exclusion criteria.

The cases were selected based on random sampling where, patients with previous episodes not more than 48 hours were considered. The cases were pre-diagnosed by Clinical Psychiatrist before considering for the study. After taking consent from the Legal Guardian, the case was taken up for the study. A detailed case-taking was done for the collection of history and symptomatology and the diagnostic tool for assessing the severity of the abnormality in patient was done by Young Mania Rating Scale (YMRS). A pre-assessment followed by medication and then a post-assessment will resolve the aim of the study. During the study period if there is any recurrence of maniac episode, the medicine will be repeated and potency will be increased based on the need. Regular follow-up at an interval of two weeks will help in assessing the improvement in the patient.

The selected individuals after administration of the remedy were monitored for knowing the evident changes. Associated therapy such as behavioral therapy, occupational therapy will also be advised along with the medication, if needed. Diet and regimen will also be advised along with the medication and will be asked to follow a healthy lifestyle.

Inclusion criteria
All the patients were from 18-60 years of age. Selection was based on the Diagnostic criteria. Cases only with the consent from legal guardian were considered. The cases diagnosed by a Clinical Psychiatrist were only included. Cases with a recent manic episode not exceeding 48 hours.

**Exclusion criteria**

Patients below the age of 18 years and above the age of 60 years. Individuals with Co-morbidities.

**RESULTS AND DISCUSSION**

The symptoms shown by patients were shown in **Fig 1**. The group symptoms which were most commonly shown in majority of cases were loquaciousness, hallucinations, delusions, illusions, indiscriminate sexual behaviour, extreme mood changes, decrease or increase in appetite, impractical behaviour and sleepiness or sleeplessness. The intensity of the symptoms before the administration of medicine was higher whereas after intervention, there is marked improvement in the same. Among the 12 patients who showed symptoms of hallucination, illusion and delusion, after the medicinal action, only 2 of them have the symptom persisting yet with a decreased intensity. In all the cases the intensity of the symptoms has been decreased characteristically.

From the above graph we can understand that Hyoscyamus has been very effective in handling the episodes of bipolar disorder in a very effective way. The compiled graph shows improvement in all the symptoms seen before the study. The severity of the symptoms was much higher before the administration of medicine and after the administration of medicine there is significant betterment in all the symptoms. Hence, the study depicts that Hyoscyamus niger is very effective in bipolar disorder.

In an article “A History of the Pharmacological Treatment of Bipolar Disorder”, it mentions about the ancient use of Hyoscyamus for treating psychiatric disorders. The Solanaceae family has the most useful alkaloids in psychiatry from which needed chemicals of various components were isolated, the plants are well- recognised for their hallucinogenic effects. Among the many, one of the important components was hyoscyamus, and was widely used as a component in psychiatric cocktails (such as the renowned Hyoscine CoA, containing hyoscine, morphine and atropine), which had a significant role in managing highly excited and
agitated manic patients. The present study has also indicated the marked action of Hyoscyamus in Bipolar disorder.

![Variation in symptoms before and after administration of medicine](image)

**Fig 1: Shows the variation in symptoms before and after intervention using Hyoscyamus niger**

The various homoeopathic remedies have been known to have great impact on bipolar disorder. The remedies being Belladonna, Lilium tigrinum, Cannabis indica, Ignatiaamara, Aurum metallicum, Opium, etc. which when indicated will have marked action on bipolar disorder. Hyoscyamus niger is known for controlling the violent behavior in a patient with bipolar disorder was Hyoscyamus Niger.

The usefulness of individualized homoeopathic medicine was done, in which it was evident that there was insight into the treatment of manic episode exclusively with homoeopathic remedies and based on the case report we get to understand the efficacy of our system in psychiatric cases. It was a non-invasive method of treatment and along with counselling and therapies it proves very helpful in such cases.
According to a retrospective study by S Karunakara moorthi to explore the usefulness of homoeopathic medicine in BPAD, manic type. All the cases were diagnosed according the diagnostic guidelines given in ICD - by Consultant psychiatrist of the institution. Medicines were prescribed on homoeopathic principles. The goal of management in mania is to control the aggression, agitation and disruptiveness of patients at the earliest. There was significant reduction in the intensity of the symptoms after individualised homoeopathic treatment. After a period of 4 weeks, out of the 15 patients with moderate mania, 2 were in remission, 3 were of minimal symptoms, 3 were of mild mania, 6 were of moderate mania and 1 case became severe. Out of the 15 patients with severe mania, 4 were in remission, 4 were of minimal symptoms, 1 were of mild mania, 4 were of moderate mania and 2 cases remained severe. Significant changes were observed after 2 weeks of intervention. Study also identified the frequently indicated medicines for mania. Belladonna was used in 200 and 1M potencies in about 30% cases. Stramonium was used in 20% cases. Other medicines which were frequently indicated was Ignatia, Sulphur, Lachesis, Phosphorus, etc [11]

CONCLUSION

Hyosamus niger is a medicine that could be used extensively for the treatment of bipolar disorder considering the symptomatology, along with correct dosage and potency, it is very useful and effective. This study also signifies the action of the drug which was identified in the ancient times and was in use from then. The mania and depressive episodes of the disorder along with the wide range of symptoms shown in them are as well represented in the drug and thus serves as a simillimum. The selection of dose, potency and repetition of the doses also plays a major role in psychiatric disorders which has to be selected based on the susceptibility of the patients. The holistic approach in Homoeopathy aids in the well-being and betterment of the patient as a whole. From the study we can infer the potent action of Hyoscyamus niger in case of bipolar disorder where there is characteristic improvement in all the symptoms shown by the patient and a decreased intensity as well.

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