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## Research Article

### A STUDY ON THE PREVALENCE OF PSYCHIATRIC SYMPTOMS IN PATIENTS OF APASMARA VIS-A-VIS GRANDMAL EPILEPSY AND THE EFFECT OF MAHAKALYANAKA GHRITA ON THOSE SYMPTOMS

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#### Abstract

Epilepsy is the most important neurological disorder which can produce psychiatric symptoms. Conventional antiepileptic drugs in the management of epilepsy intend to reduce the seizures but have no role in the management of psychiatric aspects of the disease. In Ayurvedic literature, 'Apasmara' has been mentioned as a psychosomatic disorder and ghrta has been held in high esteem for its beneficial effects in apasmara. Hence the present study was undertaken to estimate the prevalence of psychiatric symptoms in patients of apasmara and also to assess the effect of 'Maha Kalyanaka Ghrta' on those psychiatric symptoms. A total of 20 cases of apasmara were registered, among them 8 patients had symptoms related to one or more psychiatric components. To those 8 patients 'Maha Kalyanaka Ghrta' was administered for 90 days. The study showed that personality impairment was most predominant psychiatric symptom observed in patients of apasmara followed by symptoms related to anxiety. 'Maha Kalyanaka Ghrta' had very good effect in reducing the psychiatric symptoms by 57.22 % and 60.69 % at the end of 45 and 90 days of treatment respectively.

**Keywords:** Apasmara, Epilepsy, Maha Kalyanaka Ghrta, Personality Impairment, Anxiety.

## INTRODUCTION

Epilepsy is the second most common neurological disorder. Epilepsy means a tendency to have seizures and is a symptom of brain disorder<sup>1</sup>. The disease 'Apasmara' described in classical literature of Ayurveda correlates with epilepsy. Even though apasmara includes all varieties of epilepsy, by definition it is more related to grandmal epilepsy as 'Vikshhepa' is one of the cardinal features of apasmara<sup>2</sup>. Epilepsy is the most important neurological disorder which can produce psychiatric symptoms. In Ayurvedic literature, 'Apasmara' has been mentioned as an important example of a psychosomatic disorder. Apasmara involves both physical doshas and mano doshas in the initiation of disease process itself<sup>3</sup>. Conventional antiepileptic drugs in the management of epilepsy intend to reduce the seizures. The advances in modern pharmaco-therapeutics have only succeeded in introducing drugs which are anti seizure in nature. They have no role in the management of psychiatric aspects of epilepsy; instead most of the anti convulsive drugs have psychiatric ramifications on their long term usage. Ghrta has been held in high esteem for its beneficial effects both in apasmara and unmada.<sup>4</sup> Mahakalyanaka ghrta is said to be very effective in apasmara disease though mentioned in the context of unmada<sup>5</sup>. So mahakalyanaka ghrta is used for the present study.

## Objectives

- To estimate the prevalence of psychiatric symptoms in apasmara related to (a) depression (b) anxiety (c) psychosis (d) personality impairment (e) cognitive impairment.

- To assess the effect of mahakalyanaka ghrta on the psychiatric symptoms in the patients of apasmara vis-a-vis grandmal epilepsy.

## MATERIALS AND METHODS

### Incidence of Psychiatric Symptoms

A series of 20 cases of apasmara (diagnosed cases of grandmal epilepsy being treated with conventional antiepileptic drugs) who had multiple seizures for more than two years were selected for the study incidentally from the outpatient department of GAMC and H, Mysore and Swasthya kutira Ayurveda consultation centre, Mysore, India.

Each individual psychiatric symptoms present in the patient was rated, using a 5 point scale as follows.

- 0 = none
- 1 = mild
- 2 = moderate
- 3 = severe
- 4 = very severe.

The individual psychiatric symptoms were categorized into five psychiatric components namely;

- Symptoms related to depression
- Symptoms related to anxiety
- Symptoms related to psychosis
- Symptoms related to personality impairment
- Symptoms related to cognitive impairment

The scores of each psychiatric component were summed up and scoring was graded as follows.

- 0= nil
- 1-3= negligible
- 4-10= mild
- 11-15= moderate
- 16-19= severe
- 20 and above= very severe.

**Materials and Methods of the Clinical Study**

The material taken for the study was mahakalyanaka ghrta, manufactured by M/s. Nagarjuna Herbal Concentrates Ld, Kerala, India. Sampling- 8 patients were registered for the study with the Performa prepared for the study.

**Criteria for Inclusion of Patients**

- Patients of either sex between the age group of 12 to 80 years with a confirmed diagnosis of grandmal epilepsy.
- Patients who had a diagnosis of grandmal epilepsy for more than 2 years with multiple seizures.
- Patients who were presently being treated with conventional antiepileptic drugs.

**Criteria for Exclusion of Patients**

- All varieties of epilepsies other than grandmal epilepsy.
- A diagnosis of epilepsy secondary to other disorders.
- Patients having very severe grades of psychiatric symptoms.

**Clinical Trial**

8 patients who had psychiatric symptoms secondary to epilepsy/epileptic drugs were evaluated for their physiological state in terms of basic parameters. Whenever

necessary, patients were also subjected for necessary biochemical investigations. After the basal assessment, each patient was administered mahakalyanaka ghrta in the dosage of 12 gm in two divided doses, before food, followed by a cup of hot water. The administration of medicine was done for 90 days. No special diet was advised. However patients were advised to avoid spicy food.

**Assessment**

Three assessments of psychiatric symptoms were made using the scales mentioned earlier with the following schedules.

- I Pre-test assessment – Before the commencement of treatment
- II Mid test - At the end of 45 days
- III Post test - At the end of 90 days

The psychiatric symptom scores were subjected for statistical analysis by using students “t” test and they were compared with the base line at the end of 90 days of treatment.

**RESULTS**

**Incidence of Psychiatric Symptoms in Apasmara**

In the present study, among the 20 patients, 8 patients had the symptoms related to one or more psychiatric component. It was observed that the symptoms related to depression, anxiety, personality impairment and cognitive impairment were present in all the 8 patients, while symptoms of psychosis was rarely encountered i.e., in only 2 patients, that too of a negligible grade. The most predominant psychiatric symptoms observed in the patients were related to personality impairment. It was followed by symptoms related to anxiety. (Table 1)

**Table 1: Incidence of Psychiatric Symptoms in 20 Patients of Apasmara**

S. No.	Psychiatric Symptoms	No. of patients	%	Grades of involvement	
01	Symptoms related to depression	08	40 %	Negligible Mild Moderate	04 03 01
02	Symptoms related to Anxiety	08	40 %	Negligible Mild Moderate	03 03 02
03	Symptoms related to Psychosis	02	10 %	Negligible Mild Moderate	02 00 00
04	Symptoms related to personality impairment	08	40 %	Negligible Mild Moderate Severe	01 05 01 01
05	Symptoms related to cognitive impairment	08	40 %	Negligible Mild	04 04

**Table 2: Statistical Analysis of Mean Psychiatric Scores before and after the Treatment in Patients of Apasmara**

S. No	Psychiatric component	Scores		Mean (X)	SD (±)	SE (±)	T	p	Remarks
		Pre test	Post test						
01	Symptoms related to depression	37	15	2.75	2.3754	0.8398	3.2745	< 0.05	Significant
02	Symptoms related to anxiety	46	14	04	3.4641	1.2247	3.2661	< 0.05	Significant
03	Symptoms related to psychosis	03	01	0.25	0.7071	0.25	01	< 0.05	Significant
04	Symptoms related to personality impairment	61	27	4.25	3.1509	1.1140	3.8150	< 0.01	Significant
05	Symptoms related to cognitive impairment	26	11	1.875	0.9910	0.3503	5.3525	< 0.01	Significant
	Total	173	68	13.125	7.0191	2.4816	5.2889	< 0.01	Significant

**Table 3: Percentage Reduction of Psychiatric Symptoms in Patients of Apasmara after Treatment with Mahakalyanaka ghrta**

S. No	Psychiatric component	Scores			% Reduction after 45 days	% Reduction after 90 days
		Pre test	Mid test end of 45 days	Post test end of 90 days		
01	Symptoms related to depression	37	19	15	48.64 %	59.45 %
02	Symptoms related to anxiety	46	12	14	74.65 %	69.56 %
03	Symptoms related to psychosis	03	01	01	66.66 %	66.66 %
04	Symptoms related to personality impairment	61	30	27	50.81 %	55.73 %
05	Symptoms related to cognitive impairment	26	12	11	53.84 %	57.69 %
	Total	173	74	68	57.22 %	60.69 %

### Effect of Mahakalyanaka ghrta on the Psychiatric Symptoms in the Patients of Apasmara

The reduction in the overall level of psychiatric symptoms was statistically significant with  $p < 0.01$  at the end of 90 days of treatment. Further, more level of reduction in all the individual components at the end of 90 days of treatment were also statistically significant with  $p < 0.05$ , when compared to the base line (Table 2). The percentage reductions of overall psychiatric symptoms were high at 60.69 % at the end of 90 days. There was also nearly high rate of reduction (57.22 %) seen at the end of 45 days itself. The highest level of reduction was observed in the psychiatric components related to anxiety (69.56 %). Symptoms related to personality impairment responded minimally (55.73 %) when compared to other components. (Table 3)

### DISCUSSION AND CONCLUSION

Apasmara is a neurological disorder which gives rise to a large number of psychiatric symptoms involving multiple components, especially when the disease becomes chronic psychiatric symptoms figure as the most important features. Among the compound drugs indicated with priority for the management of both apasmara and unmada, mahakalyanaka ghrta is the most important one. The study confirmed the beneficial effects of mahakalyanaka ghrta on the psychiatric symptoms in the patients of apasmara. The beneficial effects appear to be due to the rasayana effect of the drug. The drug is possibly adaptogenic and develops varying degree of resistance against stress and could adopt well against stressful

situations. Even though assessment of the effect of mahakalyanaka ghrta on the frequency of seizures was not a part of the study, it was observed that the frequency of attacks reduced considerably in a good number of patients. No undesirable side effects were observed in the patients. Thus the present study has yielded evidences to suggest that there are many benefits of adding mahakalyanaka ghrta to the conventional treatment of grandmal epilepsy. mahakalyanaka ghrta is a safe and useful adjuvant remedy for the management of apasmara vis-a-vis grandmal epilepsy.

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