A CLINICAL STUDY OF SARASWATA CHURNA AND TAKRA-DHARA ALONG WITH GAVYA GHRITA NASYA IN THE MANAGEMENT OF MANOAVSAD

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ABSTRACT

Depression is the *Common Cold* of all Mental Disorders. It is a serious mental health concern that consequences losses of a significant person, object, relationship or health, but it can also be occurred due to no apparent cause. Present study includes: **Objectives-** Clinical evaluation of the Therapeutic Efficacy of *Ayurvedic* drug 'Saraswata Churna' along with *Takra Dhara* & *Gavya Ghrita Nasya* for their antidepressant effect. **Methods-** 40 clinically diagnosed and confirmed patients of *Manoavasad* were selected and randomly divided into two equal groups (A and B) for the administration of trial drug. In group A, 20 patients were treated by *Saraswata Churna, Gavya Ghrita* and Honey. In group B, 20 patients were treated by *Saraswata Churna, Gavya Ghrita* and Honey along with *Takra Dhara* and *Gavya Ghrita Nasya*. **Result-** Statistically significant result was observed in both groups A and B, respectively. **Conclusions -** Present research work concluded that proposed medicine *Saraswata Churna*, *Takra Dhara* & *Gavya Ghrita Nasya* reveals more effective antidepressant for the patients of *Manoavsad* (depression), successfully.

Keywords: *Manoavsad,* Depression, *Saraswata Churna*, *Takra-Dhara*, *Gavya Ghrita Nasya*

INTRODUCTION

Depression is an etiologically heterogenous group of brain disorders characterized by a wide range of symptoms that reflect alterations in cognitive, psychomotor and emotional processes. An episode may be characterized by sadness, indifference or apathy, or irritability and is usually associated with change in neurovegetative functions, including sleep patterns, appetite, and weight loss, motor agitation or retardation, fatigue, concentration loss, feelings of shame and thoughts of death or dying. Patients with depression

have a profound loss of pleasure in all enjoyable activities, exhibit early morning awakening, sadness and often notice in diurnal variation in mood (worse in morning hours).[1]

In *Ayurvedic* psychiatry, *Vishad* and *Avsad* are two conditions which are closely similar to depression. *Vishad* mean stupor, inactiveness, dejection, depression and Despondency while *Avsad* is sinking down, growing faint, fatigue; which shows close resemblance of *Avsad* and *Vishad* from depression. *Acharya Charaka* quotes that *Vishado Rogavardhananam Agrya*[2] means *vishad* is the foremost factor to worsen the disease condition. This is the first principle regarding psycho-neuro-immunology in *Ayurveda.*

An estimated 400 million people worldwide suffer from mental and neurological disorders.[3] In India, epidemiological surveys reveal that 1 out of 25 people have had or are suffering from an episode of depressive disorder. The lifetime expectancy of developing an attack of major depression ranges from 20% to 25% in women 7% to 12% in men.[4-5]

OBJECTIVES

Present research work has been undertaken with the following objectives

1. Clinical evaluation of the Therapeutic Efficacy of *Ayurvedic* drug *Saraswata Churna* along with *Takra-Dhara* & *Gavya Ghrita Nasya* for their Antidepressant effect.
2. To frame out aetiopathogenesis, symptomatology according to modern science and to trace out *Nidana Panchak* and *doshas* involved according to *Ayurvedic classics.*
3. To assess the effect of *shamana* therapy in the management of aforesaid ailment.
4. To find out a safe and effective remedy for Depression.

METHODS

(A) **Design of Study** *includes randomized*, control, open clinical study.

(B) **Selection of cases**- The study was conducted on 40 clinically diagnosed patients of *Manoavsad* (Depression). The patients were selected from OPD/IPD of University college of Ayurveda, DSRRAU, Jodh-

pur. The case selection was random irrespective of age, sex, occupation and socio-economic conditions. Patients were taken after evaluation of the clinical features of *Manoavsad* (Depression) in present study.

(C) Inclusion Criteria
- Patients diagnosed as per the criteria for mild and moderate depression as per Beck Depression inventory (BDI).
- Age between 16 to 50 years.
- Patients of either gender, irrespective of socioeconomic status.
- Patients with history of depression less than two year.
- Patients who were under medication for depression previously but not using now.
- Patients ready to sign informed consent form.

(D) Exclusion Criteria
- Patients with other psychiatric disorders.
- Depressive phase of substance abuse disorder.
- Pregnant women.
- Patients with suicidal tendency/ thoughts.
- Post Schizophrenic Depression.

(E) Withdrawal Criteria
- During the course of trial if any serious condition or any serious adverse effects occur which require urgent treatment.
- Patients himself/herself want to withdraw from the clinical trial.
- Patient who developed hypersensitivity for any constituent of the selected formulations.

(F) Grouping and Administration of Drug- 40 clinically diagnosed and confirmed patients of *Manoavasad* were selected and randomly divided into two equal groups A and B, respectively for the administration of trial drug. In group A, 20 patients were treated by *Saraswata Churna* (1gm twice a day) + *Gavya Ghrita* (2.5 ml) + Honey (5 ml) for 60 days. While in group B, 20 patients were treated by *Saraswata Churna* (1gm twice a day) + *Gavya Ghrita* (2.5 ml) + Honey (5 ml) for 60 days along with *Takra Dhara* for 15 days and *Gavya Ghrita Nasya* for 7 days.

(G) Assessment Criteria- *Assessment is done by using subjective and objective parameters, as well.*

(a) Subjective parameters - Criteria for assessment of patients have done on the basis of BDI, In BDI, numerical scale system used for rating. Here, 0 used for strongly disagree and 3 for strongly agree; further in this scale various symptoms are graded into different grade such as absent = 0, mild = 1, moderate = 2 and severe = 3. Factors of subjective parameters such as Sadness , Pessimism, Past Failure, Loss of Pleasure, Guilty Feelings, Punishment Feelings, Self-Dislike, Self-Criticalness, Crying, Agitation, Loss of Interest, Indecisiveness, Worthlessness, Loss of Energy, Change in sleeping pattern, Irritability, Changes in Appetite, Concentration Difficulty, Tiredness or Fatigue and Loss of Interest in Sex are graded from 0 to 3. Hence, level of depression can be categories based on score obtained from grade corresponding factors of subjective parameters. It shows that score 0-9, 10-18, 19-29 and 30-63 represents normal, mild, moderate and severe depression, respectively.

(b)Objective parameters- Hemoglobin (gm%), fasting blood sugar (FBS) and Blood Urea are assessed.

Trial Drugs

Saraswata Churna[6] - Contents of *Saraswata Churna includes Kustha, Aswagandha, Sandhavalavan, Ajmoda, Swetajiraka, Krisnajiraka, Sunthi, Marich, Pipali, Patha, Shankhpuspi, Vacha* and *Bramhi* with quantity (gram) 230, 230, 230, 230, 230, 230, 230, 230, 230, 230, 230, 2530 and 5000 respectively.

Method of preparation of trial drug- drugs *Kustha, Aswagandha, Ajmmoda, Sweta and Krisnajiraka, Sunthi, Marich, Pipali, Patha, Sankhpuspi* and *Vacha* were collected and mixed uniformly then powdered in a pulvelizer, thereafter *Saindhavalavan* was powdered in ball mill. After that both powders were mixed together and filtered in a sieve shaker (particle size no. 100). This filtered and homogeneously mixed powder was triturated 3 times with decoction of *Bramhi* and dried. Here the decoction of *Bramhi* was prepared by using one part green *Bramhi* whole plant and sixteen part water. After that it was boiled in a wide open mouth iron container till 1/4th of it was left. The remaining part was filtered and used as a decoction for trituration. Here the decoction of *Bramhi* was used because the yield of *Swarasa* was very less and also it was found practically difficult. Hence 4.8 kg of *Saraswata Churna* was prepared.

*Takra-Dhara***:** 50 gms of *Amalaki* (seedless) was put in 4000 ml of water boiled and reduced to half and mixed in 1.5 liter butter milk.

*Gavya-GhritaNasya***:** *Gavya Ghrita Nasya* was given to the patient once in a day with a dose of 2 drops in each nostrils for 7 days.

TIMELINES: Treatment period - *Saraswata Churna for* 60 days, *Takra-Dhara* for 15 days and *Nasya for* 7 days

Follow- up period- Patients were examined for the change in the signs and symptoms on 15th , 30th ,45th and 60th day of treatment.

OBSERVATIONS

Maximum number of patients that is 26 (65%) belonged to 21-30 years age group, maximum patients were Male i.e. 23 (57.5%) and most of the patients were Hindus 39 (97.5%) and Unmarried 25 (62.5%). Most of the patients were undergraduate i.e. 13 (32.5%), most of the patients were from Urban habitat i.e. 28 (70%), maximum number of patients were from middle class 14 (35%), Maximum patients i.e. 23 (57.5%) were students. Most of the patients were having *Vata-Pittaj Sharirika Prakriti* i.e. 17 (42.5%) and Most of the patients were having *Rajasika ManasikaPrakriti* i.e. 16 (40%), Most of the patients were having *Samagni* i.e. 14 (35%). Most of the patients were of *Pravara Samhanana* i.e. 17 (42.5%), *Madhyama Sara* i.e. 26 (65%), *Avara Satva* i.e. 14 (35%) and *Madhyama Satmya* i.e. 21 (52.5%). Maximum numbers of patients were having *Madhyam Kostha* i.e. 18 (45%). Maximum number of patients was having *Madhyama Abhyavaharana Shakti* i.e. 17 (42.5%), *Madhyama Vyayama Shakti*i.e.17 (42.5%) and *MadhyamaJaran Shakti* i.e. 19 (47.5%). Most of the patients were having Vegetarian Dietary habits i.e. 39 (97.5%) and Tea addiction i.e. 15 (37.5%). Most of the patients were having negative family history i.e. 35 (87.5%) and Nuclear type of family i.e. 22 (55%). Most of the patients were having 7-12 months old chronicity of disease i.e. 16 (40%).

RESULT AND DISCUSSIONS

Table 1 shows the Intra Group comparison in Subjective Parameters using Wilcoxon matched-pairs signed rank test.

Table 1 Intra Group comparison in Subjective Parameters

Variable	Gr	Mean Score			% Relief	S.D.±	S.E.±	P- Value	S
		BT	AT	X					
Sadness	A	1.45	0.60	0.85	58.62%	0.3663	0.08192	<0.0001	ES
	B	1.25	0.45	0.80	64%	0.5231	0.1170	<0.0001	ES
Pessimism	A	1.70	0.65	1.05	61.76%	0.2236	0.05000	<0.0001	ES
	B	1.10	0.45	0.65	59.00%	0.4894	0.1094	0.0001	ES
Past Failure	A	0.40	0.30	0.10	25.00%	0.3078	0.06882	0.2500	NS
	B	1.05	0.45	0.60	57.14%	0.5982	0.1338	0.0005	ES
Loss of Pleasure	A	1.10	0.70	0.40	36.36%	0.5026	0.1124	0.0039	VS
	B	1.65	0.45	1.20	72.72%	0.5231	0.1170	<0.0001	ES
Guilty Feelings	A	0.45	0.30	0.15	33.33%	0.3663	0.08192	0.1250	NS
	B	0.35	0.15	0.20	57.14%	0.4104	0.09177	0.0625	NQS
Punishment Feelings	A	0.30	0.15	0.15	50%	0.3663	0.08192	0.1250	NS
	B	0.20	0.05	0.15	75%	0.3663	0.08192	0.1250	NS
Self dislike	A	0.70	0.30	0.40	57.14%	0.5982	0.1338	0.0078	VS
	B	1.00	0.25	0.75	75%	0.6387	0.1428	0.0001	VS
Self criticalness	A	0.35	0.20	0.15	42.85%	0.3663	0.08192	0.1250	NS
	B	0.95	0.30	0.65	68.42%	0.6708	0.1500	0.0005	ES
Crying	A	0.35	0.10	0.25	71.42%	0.4443	0.09934	0.0313	S
	B	0.25	0.10	0.15	60%	0.3663	0.08192	0.1250	NS
Agitation	A	1.45	0.70	0.75	51.72%	0.4443	0.09934	<0.0001	ES
	B	1.65	0.40	1.25	75.75%	0.6387	0.1428	<0.0001	ES
Loss of Interest	A	1.70	0.80	0.90	52.94%	0.3078	0.06882	<0.0001	ES
	B	1.45	0.50	0.95	65.51%	0.5104	0.1141	<0.0001	ES
Indecisiveness	A	1.45	0.85	0.60	41.37%	0.5026	0.1124	0.0002	ES
	B	1.50	0.55	0.95	63.33%	0.6048	0.1352	<0.0001	ES
Worthlessness	A	1.65	0.55	1.1	66.66%	0.4472	0.1000	<0.0001	ES
	B	1.20	0.35	0.85	70.83%	0.6708	0.1500	<0.0001	ES
Loss of Energy	A	1.70	0.75	0.95	55.58%	0.5104	0.1141	<0.0001	ES
	B	1.40	0.30	1.1	78.57%	0.5525	0.1235	<0.0001	ES
Change in sleeping pattern	A	0.70	0.30	0.40	57.14%	0.5026	0.1124	0.0039	VS
	B	1.0	0.35	0.65	65%	0.5871	0.1313	0.0002	ES
Irritability	A	1.30	0.60	0.70	53.84%	0.4702	0.1051	<0.0001	ES
	B	1.50	0.55	0.95	63.33%	0.6048	0.1352	<0.0001	ES
Changes in Appetite	A	0.30	0.15	0.15	50%	0.3663	0.08192	0.1250	NS
	B	0.15	0.05	0.10	66.66%	0.3078	0.06882	0.25	NS
Concentration Difficulty	A	1.45	0.70	0.75	51.72%	0.4443	0.09934	<0.0001	ES
	B	1.50	0.60	0.90	60%	0.6407	0.1433	<0.0001	ES

Tiredness or Fatigue	A	1.70	0.80	0.90	52.94%	0.4472	0.1000	<0.0001	ES
	B	1.50	0.50	1.0	66.66%	0.5620	0.1257	<0.0001	ES
Loss of Interest in Sex	A	0.15	0.05	0.10	66.66%	0.3078	0.06882	0.2500	NS
	B	0.20	0.10	0.10	50%	0.3078	0.06882	0.2500	NS

where, BT: before treatment; AT: after treatment; X: difference; SD: standard deviation; SE: standard error; S: significant; V.S.: very significant; E.S.: extremely significant; N.S.: not significant, N.Q.S.: not quit significant. The results of therapeutic trial reveal that patients of group A showed statistically *extremely significant* (P < 0.0001) changes in symptoms of sadness, pessimism, agitation, loss of interest, indecisiveness, worthlessness, loss of energy, irritability, concentration difficulty and tiredness or fatigue. Statistically very significant (p < 0.01) changes in symptoms of loss of pleasure, self dislike and change in sleeping pattern. Statistically significant (p < 0.05) changes in symptoms of crying. While statistically not significant (p > 0.05) changes in symptoms of past failure, guilt feelings, punishment feelings, self criticalness, changes in appetite, loss of interest in sex. The results of therapeutic trial reveal that patients of group B showed statistically extremely significant (p < 0.0001) changes in symptoms of sadness, pessimism, past failure, loss of pleasure, self criticalness, agitation, loss of interest, indecisiveness, worthlessness, loss of energy, change in sleeping pattern, irritability, concentration difficulty and tiredness or fatigue. Statistically very significant (p < 0.01) changes in symptoms of self dislike. Statistically not significant (p > 0.05) changes in symptoms of punishment feelings, crying, changes in appetite, loss of interest in sex. While statistically not quit significant (p < 0.10) changes in symptoms of guilty feelings.

Table 2 Inter Group comparison in Subjective Parameters

Sr. No.	Variable of Subjective Parameters	U (Man Whitney)	P-Value	Significance
1.	Sadness	188.50	0.3409	NS
2.	Pessimism	133.00	0.0032	VS
3.	Past Failure	109	0.0014	VS
4.	Loss of Pleasure	74	<0.0001	ES
5.	Guilty Feelings	188.50	0.3260	NS
6.	Punishment Feelings	200	0.4913	NS
7.	Self-Dislike	139.5	0.0347	S
8.	Self-Criticalness	117	0.0038	VS
9.	Crying	190	0.3612	NS
10.	Agitation	117.5	0.0044	VS
11.	Loss of Interest	192	0.3794	NS
12.	Indecisiveness	142	0.0343	S
13.	Worthlessness	181.5	0.2820	NS
14.	Loss of Energy	174	0.1894	NS
15.	Change in sleeping pattern	146.5	0.0506	NQS
16.	Irritability	159	0.0915	NQS
17.	Change in Appetite	182	0.2225	NS
18.	Concentration Difficulty	177.50	0.2347	NS
19.	Tiredness	173.50	0.1675	NS
20.	Loss of Interest in Sex	200	0.4896	NS

Table 2 shows the Inter group comparison in Subjective Parameters using Mann-Whitney Test. In Inter-group, comparison loss of pleasure shows extremely significant (p < 0.0001) result. Pessimism, past failure, self-criticalness, agitation are shows very significant (p < 0.01) results. Self-dislike, indecisiveness are shows significant (p < 0.05) results. sadness, guilt feelings, punishment feelings, crying, loss of interest, worthlessness, loss of energy, change in appetite, concentration difficulty, tiredness, loss of interest in sex are shows not significant (p > 0.05) results. Change in sleeping pattern, irritability are shows not quit significant (p < 0.10) results.

Table 3 Intra Group comparison in Objective Parameters

Variable	Gr	Mean Score			% Relief	S.D.±	S.E.±	P- Value	t- value	S
		BT	AT	X						
Hbgm%	A	12.92	13.135	-0.215	1.66%	0.6335	0.1417	0.0728	1.518	NQS
	B	12.57	12.9	-0.33	2.62%	0.4067	0.09093	0.0009	3.629	ES
FBS	A	90.20	87.450	2.750	3.04%	6.912	1.546	0.0456	1.779	S
	B	89.30	83.80	5.5	6.15%	5.155	1.153	<0.0001	4.771	ES
Blood Urea	A	27	26.20	0.80	2.96%	1.556	0.3479	0.0165	2.300	S
	B	26.05	25	1.05	4.03%	2.036	0.4553	0.0120	2.306	S

Table 3 shows the intra group comparison in objective parameters using paired 't' test. The results reveal that patients of group-a showed statistically significant (p < 0.05) change (decrease) in FBS and Blood Urea while statistically not quit significant (p < 0.10) change (increase) in Hbgm%. In patients of group-b statistically significant (p < 0.05) change (decrease) in Blood Urea. Statistically extremely significant (p<0.0001) change in FBS and Hbgm%. Inter group comparison in objective parameters tested using unpaired 't' test. In inter-group comparison Hbgm% and Blood Urea shows not significant (p > 0.05) results. While FBS shows not quit significant (p < 0.10) results.

CONCLUSION

On the basis of clinical manifestation, the disease *Manoavsad* can be correlated with the Depression as described in modern medical science. Patients of *Manoavsad* treated with *Saraswata Churna* & *Takra Dhara* along with *Gavya Ghrita Nasya* (Group B) has shown the best recovery in clinical manifestation of the disease. Psychotherapy and exercise have an important role as an adjuvant to medication in the management of depression. No adverse effects of the study were observed during the study or in follow-up time. Therefore, it can be concluded that *Saraswata Churna, Takra-Dhara* & *Gavya Ghrita Nasya* may be used separately or in combination together for the management of patients of *Manoavsad*, successfully.

REFERENCES

1. Braunwald et al ; Harrison's Principles of Internal Medicine; Vol. II; McGraw-Hill Publication; 15th Edition; Pg. No. 2548-49.
2. Datta C. *CharakaSamhita.* Trans. Sharma RK and Dash B, Vol. I, *Sutra Sthana*25/40,*Chowkhamba Sanskrit Series Office,* Varanasi, India, 2008
3. Conquering depression, Dr Sudhir Khandelwal and other authors Department of Psychiatry, All-India Institute of Medical Sciences, New Delhi, India, World Health Organization 2001.
4. Mitchell D. Feldman, John f. Christensen, Jason F. Satterfield; Behavioral medicine, A Guide for clinical practice; 4th Edition; Pg. No. 245
5. Kumar Praveen, Michael Clark, Kumar & Clark Clinical Medicine, Elsevier publication,2005; 6th edition, Pg. no. 1289.
6. *Bheshjya Ratnavali* of Kaviraj Govind Das Sen with Siddhiprada Hindi Commentary by Prof. Siddhi Nandan Mishra, Ch. 24/26-29, *Chaukhamba Surbharati Prakashan*, Varanasi, India, 2015, Pg. no. 503.