

Clinical Research

A Comparative clinical trial on the role of *Panchakarma* therapy and *Unmada Gajankusha Rasa* in the cases of major depressive disorder vis-à-vis *kaphaja Unmada*

Sarvesh Dubey, J. S. Tripathi, Sanjay Gupta¹, K. R. C. Reddy²

Division of Manasa Chikitsa, Department of Kayachikitsa, ¹Department of Psychiatry, ²Ayurvedic Pharmacy, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India.

Abstract

Depression is a common but serious mood disorder which exerts wide range of physical, physiological and psychological impact. On the basis of the severity of disease, depression is classified under various categories. Of all the types of depression, major depressive disorder resembles the features of *kaphaja Unmada*. The patients of *Kaphaja Unmada* are dirty in appearance, their speech and activities are retarded and they prefer to remain in solitude and lonely places. The present study has been conducted in eighty patients of major depressive disorder dividing them into four groups, A, B, C and D using *Vamana* therapy and *Unmada Gajankusha Rasa* in the dose of 250 mg twice daily with water. The results were assessed on scoring of clinical symptoms and signs and by using Hamilton depression rating scale (HDRS). The results reveal the mild to moderate degree of response over various parameters which has been presented in detail in the article.

Key words: *Kaphaja Unmada*, major depressive disorder, *Panchakarma*, *Unmada Gajankusha Rasa* *Vamana karma*.

Introduction

Everyone occasionally feels blue or sad, but these feelings are usually fleeting and pass within a couple of days. When a person has a depressive disorder, it interferes with daily life, normal functioning, and causes pain for both the person with the disorder and those who care about him or her. Depression is a common but serious illness, and anyone who experiences it need treatment to get better. Major depression is defined as depressed mood on a daily basis for a minimum duration of two weeks. An episode may be characterized by sadness, indifference, apathy, or irritability and is usually associated with changes in sleep patterns, appetite, and weight; motor agitation or retardation; fatigue; impaired concentration and decision-making; feelings of shame or guilt; and thoughts of death or dying. Patients with depression have a profound loss of pleasure in all enjoyable activities, exhibit early morning awakening, feel that the dysphoric mood state is qualitatively different from sadness, and often notice

a diurnal variation in mood (worse in morning hours).^[1] According to *Aacharya Charaka*, the patients of *Kaphaja Unmada* are dirty in appearance, their speech and activities are retarded and they prefer to remain in solitude and lonely places. Their biological functions like sleep, sex desire and appetite grossly disturbed. They like complete silence and show disinterest in taking food. Dribbling of saliva from mouth along with whitish discoloration of eyes and nails are commonly found.^[2] All these features support the *Kaphaja Unmada* as full blown depressive disease described as major depressive disorder.

Despite all the developments with regard to the management of depression and the world wide researches, a satisfactory management of depression is still elusive. Though, many modern medications are available but they are not free of adverse effects. Further, their effects are also not sustained for long time unless the real cause of the disease is not rooted out.

Aims and Objectives

The present study was planned with the objectives of assessing the effect of *Vamana* therapy and the role of *Unmada Gajankusha Rasa* in the management of the major depressive disorder and to compare their antidepressant activity clinically with established modern antidepressant fluoxetine. It was also planned to study the combined effect of trial therapy and medication in a separate group of patients.

Address for correspondence: Dr. J. S. Tripathi, Associate Professor & Incharge, Division of Manasa Chikitsa (Psychosomatic Medicine & Psychiatry), Department of Kayachikitsa, Faculty of Ayurveda, I.M.S., B.H.U., Varanasi, India. E-mail: drjstripathi@rediffmail.com

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Materials and Methods

Selection of cases

Eighty cases, recruited under the present study, were selected from the Kayachikitsa O.P.D., I.P.D. and Department of Psychiatry O.P.D., S.S.Hospital, I.M.S., B.H.U. Varanasi. Case selection was random regardless of age, sex, occupation and socioeconomic considerations.

Inclusion criteria

The patients who fulfilled the DSM-IV diagnostic criteria for major depressive disorder were included in this study and were subjected to clinical trial of *Unmada Gajankusha Rasa* and *Vamana* therapy. Patients having severely depressed mood, markedly diminished interest or pleasure, psychomotor retardation, worthlessness, recurrent thoughts of death diminished social and occupational functions for at least two weeks and conforming to the DSM-IV criteria were included in the present study.

The exclusion criteria

Patients with symptoms or having the history of following clinical conditions were excluded

1. Mood incongruent delusions or hallucinations, incoherence, marked loosening of associations.
2. Superimposed schizophrenia, schizophreniform disorders, mania or bipolar disorders.
3. Generalized anxiety disorders, obsessive compulsive disorders.
4. Chronic drug abuse, e.g.-barbiturates, etc.
5. Toxic abuse like alcohol ingestion and withdrawal.
6. Organic diseases like some diseases of gastrointestinal system (irritable bowel syndrome, colitis), myocardial infarction, CNS disease (e.g. Alzheimer's disease), metabolic and endocrine disorders (e.g. hypothyroidism, hypoglycemia) and systemic diseases like rheumatoid arthritis and other connective tissue disorders etc were excluded from the study. Relevant investigations were done, wherever found necessary.

Study groups

All the patients who were selected for the study, after carefully examining their clinical presentation and fulfilling the inclusion criteria, were registered for this study. Eighty patients, who turned up for complete follow-ups, were belonging to four groups as follows:

- a) The first group ($n = 10$) patients were given *Vamana* therapy.
- b) The second group ($n = 30$) patients were put on the trial drug *Unmada Gajankusha Rasa* (250 mg) twice a day with plain water for three months.
- c) The third group ($n=10$) patients were put on *Unmada Gajankusha Rasa* along with *Vamana* therapy.
- d) The fourth group ($n=30$) patients were put on *Fluoxetine.20 mg* once a day for three months for comparative study.

Follow up study

After the initial registration and basal study, all the patients were recruited in respective trial groups and received the treatment regularly. They were advised to come at 15 days interval for the

assessment of progress but the follow ups were recorded each at one month interval for three consecutive months. During each visit, patients were interviewed regarding their progress in symptomatology, physical examination, mental status examination, if any or other associated features besides informations about compliance of the therapy given. Proper records were taken.

Parameters for assessment of the therapeutic response

1. Clinical assessment
2. Psychological assessment

Clinical assessment

The symptomatic relief produced by the trial treatment was assessed by subjective analysis converted into objective scoring of symptoms during initial visit and on successive follow ups at one month intervals for entire period of therapeutic trial i.e. for three months.

Psychological assessment

The effect of treatment was also assessed in terms of certain psychological factors. The emphasis was put to the rating of changes in the scores of depression. Hamilton depression rating scale (HDRS) has been used to quantify the psychological parameters. HDRS is an objective method for clinical assessment of depressive states in patients of depression. Being one of the most reliable scales for measuring level of depression comprising the rating of diverse clinical signs and symptoms of disease, it has been used for the objective assessment of clinical condition in patients of depression in the present study. This scale consists of 17 items, each of which is rated from 0 to 2 or 0 to 4 with total scoring ranging from 0 to 50. Score of 7 or less may be considered as normal, 8 to 13 mild, 14-18 moderate, 19-22 severe and 23 and above very serious depression.

Statistical test

The obtained data on the basis of observations was subjected to statistical analysis in terms of mean, standard deviation, and standard error by applying paired and unpaired 't' test. The results were interpreted at the level of $P < 0.001$ as highly significant, $P < 0.05$ or $P < 0.01$ as significant and $P < 0.10$ or $P > 0.01$ as insignificant.

Trial drug

Unmada Gajankusha Rasa is mentioned in various authentic text books of *Āyurveda*. In the present work, *Unmada Gajankusha Rasa* has been used for clinical trial as per the reference of *Bhaishajya Ratnavali*. It was prepared in *Āyurvedic* pharmacy, I.M.S., B.H.U adopting the method of preparation mentioned in classics. It contains *Parada (mercury)*, *Dhattura mula* (roots of *Datura metel*), *Shuddha Vishamushti* (*Strychnos nuxvomica*), *Tamra churna* (copper), *Suddha Gandhaka* (pure sulfur), *Suddha Dhatura Bija* (seeds of *Datura metel*), *Abhrraka bhasma* and *Shuddha Vatsanabha (Aconitum ferox)*. The drug was administered in the doses of 250mg twice a day with plain water for three months.^[3]

Vamana therapy

Vamana or therapeutic emesis is the procedure of eliminating *Kapha dosha* from the body through the upper passages by vomiting. Emesis therapy is not merely a matter of administration of emetics to empty the contents of the chest and

G.I.T. but according to *Āyurvedic* principles, it is a therapeutic measure to be applied after the patient has been prepared properly by *snehana* with the help of *Abhyantara ghrītapana* for specific period of (*Accha ghēta* in present study) five to seven days and *Bahya snehana* (*Abhyanga*) with *Mahanarayana taila* and *Swedana* (*fomentation*) for total biological purification of the body. *Vamana* was given with the following drugs: *Madana phala Churna* -8 g, *Yashtimadhu Churna*-10 g, *Vacha Churna*-4 g, *Saindhava lavana*-25 g,-50 g, *Honey* - 50 ml, *Milk* - 4-5 l.

Results

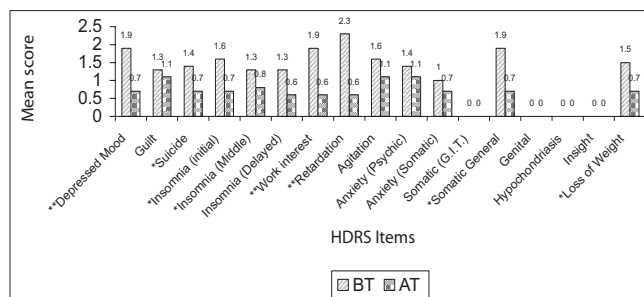
The effect of therapy in Groups A, B, C, and D is shown in Graphs 1, 2, 3, and 4 respectively. The statistical comparison between the groups is shown in Table 1 below.

Discussion

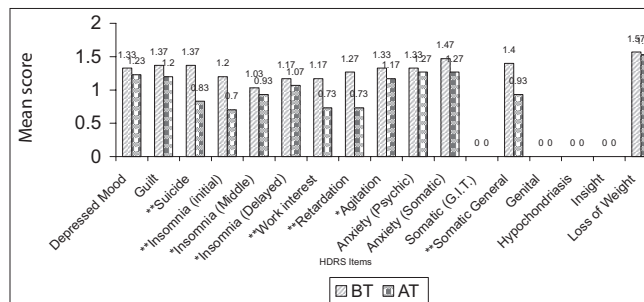
The pre and post treatment observations were recorded and the paired 't' test was done to find out the statistical significance. Regarding the response of the treatment on symptoms in the patients of Group A, treated with *Vamana* therapy, it was found that there was highly significant response in case of disturbed sleep, which may be because *Vamana* eradicates *Tridosha* in general and particularly *kapha dosha* (*Cha.Su.15/22*). *Vata* controls and regulates *Mana* (*Cha Su.-12/4(5)*), optimum psychosomatic state is responsible for proper sleep pattern and its physiology. *Samshodhana* has its beneficial *psychosomatic* effect (*Cha.Chi.9/28*); therefore, it can be said that *Vamana* would be an excellent treatment in depressive illness being predominantly a *Kaphaja* disorder. *Aruchi* is *nanatmaja vyadhi* of *Kapha* (*Cha. Su.20/17*), *Vamana* is responsible for significant improvement in *Aruchi* (*Anorexia with weight loss*), *Ruja* (*pain*) is due to *Vata*, *Vamana* eradicates *Vata* also due to its quality to pacify *Tridosha* (*Cha.Su.15/22*). It has provided highly significant improvement in bodyache. *Headache* (*Shiroruja*) is due to *Tridosha* and as *Vamana* eradicates *Tridosha*, this quality is responsible for highly

Table 1: Inter group comparison on the basis of Hamilton depression rating scale (HDRS) scores

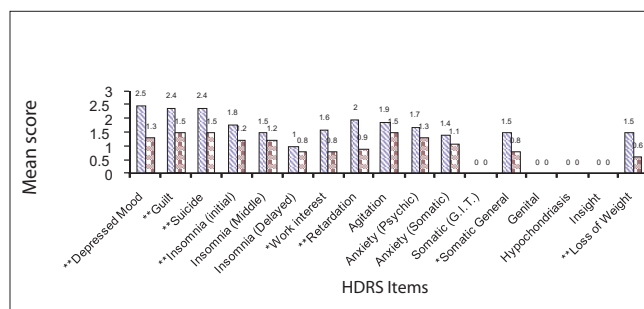
	B.T. (mean ± SD)	A.T. (mean ± SD)	Difference of BT and AT(d) (mean ± SD)	Unpaired 't' test.
Group A (n = 10)	20.40 ± 4.5	10.10 ± 3.17	10.3±1.25	Between 'B'and 'C' <i>P</i> <0.01 <i>t</i> = 3.13
Group B (n = 30)	17.21 ± 4.14	13.59 ± 3.62	3.62±1.72	Between 'A' and 'D' <i>P</i> <0.01 <i>t</i> = 5.36
Group C (n = 10)	20.20 ± 4.49	14.5 ± 3.80	5.7±2.12	Between 'C and 'D' <i>P</i> >0.05 <i>t</i> = 0.64
Group D (n = 30)	16.41 ± 4.05	11.30 ± 3.36	5.1±2.7	



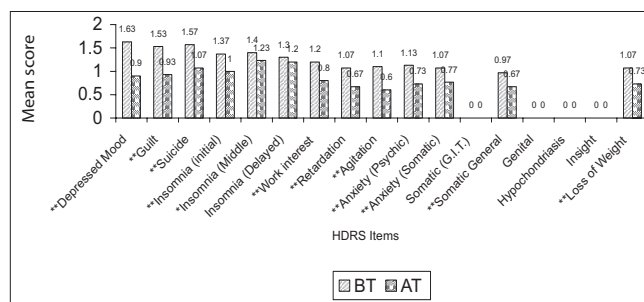
Graph 1: Effect of treatment over HDRS score in the patients of Group A



Graph 2: Effect of treatment over HDRS score in the patients of Group B



Graph 3: Effect of treatment over HDRS score in the patients of Group C



Graph 4: Effect of treatment over HDRS score in the patients of Group D

significant improvement in headache. *Easy fatigability* (*Klama*) is due to *Kapha*, *Vamana* is the best procedure to eradicate the *Kapha* consequently gives highly significant result in easy fatigue. Loss of interest in activities is also due to excess of *Kapha*, probably this is the reason why highly significant result has been achieved in case of loss of interest in activities. Lack of confidence is very much related to mental status; it is the feature of *hina satva*, *Vamana* improves *Bala* (*Cha.Su.15/22*),

it can be the reason behind highly significant improvement in case of lack of confidence. Irritability (*Anvashthitcittata*) is the (*Cha.Su-20/11*) *Vamana* as stated earlier eradicates *Vata* also; in this study, highly significant improvement has also been obtained in case of irritability. Unexplained fear and suicidal ideation indicate lack of *Bala* to cope up his/her problem, as stated earlier *Vamana* improves *Bala*; which may be responsible for highly significant improvement in suicidal ideas. Sad mood and psychomotor retardation are *Kaphaja* features, so *Vamana* may have produced highly significant improvement due to its property. Impaired concentration and forgetfulness has thereby shown significant improvement, it may be due to improvement of mental functioning by *Vamana*. (.....*Manaha prasadama Apmoti smritim sanjnama cha vindati -Cha.Chi.9/28*).

In Group-B patients, treated with *Unmada Gajankusha Rasa* alone, highly significant changes were found in disturbed sleep, bodyache, headache, easy fatigability, loss of interest in activities, lack of confidence, irritability, unexplained fear, sad mood and significant changes were found in impaired concentration and forgetfulness. *Unmada Gajankusha Rasa* is a herbomineral preparation containing certain *Vishaushadhis* like *Aconitum ferox*, *Datura metel*, *Strychnos nuxvomica* having *Ushna Veerya* property and in their medicinal doses, pacify *Vata* and *Kapha Doshas*. *Murcchita Parada* with *Gandhaka (sulfur)* has *Vyadhinashaka* property, *Abhraka* pacify *Tridosha*, *Tamra* has the property to pacify *Kapha* and *Pitta*. In the light of these pharmacological properties, it can be said that *Unmada Gajankusha Rasa* provides the beneficial psychotropic effect in major depressive disorder *vis-a-vis Kaphaja Unmada*.

In the patients of Group C, treated by the combination of *Vamana* therapy and *Unmada Gajankusha Rasa*, statistically highly significant changes were observed in disturbed sleep, bodyache, easy fatigability, loss interest in activities, lack of confidence, impaired concentration and forgetfulness, suicidal ideation and significant changes were found in Anorexia with weight loss, headache, unexplained fear, sad mood, and psychomotor retardation.

As discussed earlier, *Vamana* and trial drug have significant and highly significant effect symptomatically in the cases of *major depressive disorder vis-a-vis Kaphaja Unmada*, might have produced synergistic effect, which is evident from relatively better clinical effect when used in combination.

Therapeutic response was also objectively assessed with the help of rating on HDRS. In HDRS, statistically highly significant results were found in the items of depressed mood, work interest, retardation, while significant findings were obtained in suicide, insomnia initial and insomnia delayed somatic general and loss of weight. In case of Group A, in which the patients were given *Vamana* therapy, which is supposed to be the best procedure to eradicate the *Kapha*. In Group B patients, statistically highly significant changes were found in suicide, insomnia initial, work interest, retardation, somatic general while significant result was found in case of agitation.

Trial drug, *Unmada Gajankusha Rasa*, specially has the property to pacify specially the *Vata*, *Kapha dosha* which has been used in this group of patients.

In Group C patients, statistically highly significant changes were found in depressed mood, guilt, suicide, insomnia initial, retardation, loss of weight, while significant changes were found in work interest and somatic general. *Vamana* along with trial drug was used in these patients.

On comparison between Groups B and C and A and D in terms of HDRS score, statistically highly significant changes were observed, but mean decrease of HDRS score in Group C (5.7 ± 2.12) is more than Group B (3.62 ± 1.72). The intergroup comparison reveals that it may be due to additional purificatory effect of *Vamana* thereby in Group C applied which might be responsible for slightly better effect seen in Group C patients.

On comparison between Group A and D, statistically highly significant changes were observed, but mean decrease of HDRS score is more in Group A (10.10 ± 3.17) than Group D (5.1 ± 2.7). The difference in effect

between Group A and D may be due to the systemic and procedural effect of *Vamana* therapy which might have resulted in better response than only systemic effect of fluoxetine used in control group to compare the effect.

Conclusion

It may be concluded that *Vamana* therapy is a very effective procedure in the cases of major depressive disorder and *Unmada Gajankusha Rasa* is a mild to moderately effective remedy in the cases of major depressive disorder. Therefore, it can be concluded that *Vamana* and *Unmada Gajankusha Rasa* both have exerted moderate to mild antidepressant effect. As discussed earlier, *Vamana* and trial drug have significant and highly significant effect in the cases of *major depressive disorder vis-a-vis Kaphaja Unmada*, which might have produced synergistic effect, which is evident from relatively better clinical effect when used in combination.

Thus, the present study has yielded many useful information related to therapeutics and pharmaceuticals of *ĀyurVeda* in general and *Kaphaja Unmada vis-a-vis major depressive disorder* in particular. The findings of this study have the potential to enlighten the future researches in this area and provide lead for future work.

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हिंदी सारांश

कफज उन्माद के संदर्भ में मेजर डिप्रेसिव डिसार्डर के रूग्णों में पंचकर्म चिकित्सा तथा उन्माद गजांकुश रस के प्रभाव का तुलनात्मक अध्ययन

सर्वेश दुबे, जे.एस.त्रिपाठी, संजय गुप्ता, के.आर.सी.रेड्डी

वर्तमान अध्ययन चार ग्रुपों (ए0, बी0, सी0, डी0) में विभक्त "मेजर डिप्रेसिव डिसार्डर" के रोगियों में किया गया है। उपर्युक्त अध्ययन में वमन चिकित्सा एवं उन्मादगजांकुश रस का 250 मिली ग्राम की मात्रा में जल के साथ दिन में दो बार रोगियों को सेवन कराया गया है। परिणामों का मूल्यांकन रोगी की लक्षणों तथा "हैमिल्टन डिप्रेसन रेटिंग स्केल" के आधार पर किया गया है। विभिन्न मानकों पर मध्यम श्रेणी का परिणाम परिलक्षित हुआ है। मानसिक अवसाद एक सामान्य लेकिन गम्भीर व्याधि है। मानसिक अवसाद शरीर एवं मन दोनों को गम्भीररूप से प्रभावित करता है। मानसिक अवसाद गम्भीरता के आधार पर विभिन्नरूपों में प्रकट होता है। मानसिक अवसाद के समस्त प्रकारों में "मेजर डिप्रेसिव डिसार्डर", कफज उन्माद से सादृश्यता प्रकट करता है। कफज उन्माद का रोगी गन्दकीपूर्ण ढंग से रहता है, उसका स्वर एवं गतिविधियां अपेक्षाकृत मन्द एवं वह एकान्तवासी रहना पसन्द करता है।