CLINICAL EFFICACY OF MASTUDHARA IN THE MANAGEMENT OF DEPRESSION

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ABSTRACT:
The study was undertaken to evaluate the clinical efficacy of Mastudhara in the management of Depression. Mastudhara is Anubhuta Panchakarma Chikitsa which resembles its appearance to herbal medicated Shirodhara. Mastudhara proves extremely beneficial as it can be performed on the OPD & IPD basis, gives significant relief in the symptoms e.g. Dysphoric mood, loss of interest, insomnia, cognitive impairment etc. in considerably short duration of treatment. Mastudhara contains Sarpagandha (Rauwolfia serpentina), Ashwagandha (Withania somnifera), Vacha (Acorus calamus), Jatamansi (Nordastachys jatamansi) & Mansyadi Kwatha along with Ksheerpaka. The Subjective Parameters like Dysphoric mood, loss of interest, Cognitive impairment, loss of appetite & loss of weight & Hamilton depression scale etc were used to score clinical outcome. The average clinical improvement was calculated by proper statistical treatment. Our experience with this modality has been encouraging as the response pattern is good in considerably short duration of treatment. The patient improves gradually after 3 weeks of treatment.

Key Words: Depression, Mastudhara, Hamilton depression scale

INTRODUCTION
Depression is the clinical entity characterized as syndrome & not just sad mood resulting from reaction to negative life experiences. It is specific mood (referring to prolonged emotion while affect signifies a cross section of mood) which may be fleeting emotion to a major psychiatric disorder. Mastudhara is Anubhuta Panchakarma which resembled its appearance to herbal medicated Shirodhara but proves wonderful remedy for the management of Depression. It contains Dravya namely Jatamansi, Ashwagandha, Vacha, Sarpagandha along with Mastu & Mansyadi Kwatha. Nowadays many of us find ourselves running to full speed just to stay in modern lifestyle which has swiftness & intricacy for which we are unprepared. Economic fluctuations, decrease humanity, unappreciable high ambitions are leading to increased number of psychiatric & psychosomatic disorder e.g. Anxiety neurosis, depression etc. All these outcomes are due to the increasing stress in response of body to various environmental, physical, & social situations & which is the major problem in our society. About seventy five percent of body changes are said to be stress related. “Stress” is difficult to define & may mean different things to different people in divergent circumstances. Thus stress is response to specific stimuli called “stress inducers”. Depression is a drop of ocean like huge subject stress.

Aim of Mastudhara:
To alleviate depressive symptoms & to aid the patient in developing Manas effective Skills for coping with social interpersonal relationship

Materials & methods
Raw materials was collected & authentified from Dept. of Dravyaguna, D. Y. Patil School of Ayurveda, was prepared from Dept. of Rasa-Bhaisajya Kalpana, The drug selected for the clinical study were as under.

A. Material
Ingredients of Mastudhara
1) Sarpagandha (Rauwolfia serpentina) = 20 gm each (Shhula Churna)
2) Ashwagandha (Withania somnifera) = 20 gm each (Shhula Churna)
3) Jatamansi (Nordastachys jatamansi)
4) Vacha (Acorus calamus)
5) Dhatura (Dhatura stramonium)
6) Water = 3200ml
7) Cow milk = 800 ml

Ksheerpaka- Swangasheeta Dadhi- Mastu (Medicate liquid parts from curds) (750 ml) + (equal parts of Mansyadi Kwatha) (750 ml)
B. Methods

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Particulars</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No. of patients</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>2.</td>
<td>Treatment Given</td>
<td>Medicated Mastudhara</td>
<td>Placebo : Plain Dhara of same Colour</td>
</tr>
<tr>
<td>3.</td>
<td>Dosage</td>
<td>1500-1800 ml</td>
<td>1500-1800 ml</td>
</tr>
<tr>
<td>4.</td>
<td>Dosage Schedule</td>
<td>At 6 Am to 09.30 Am</td>
<td>At 6 Am to 9.30 Am</td>
</tr>
<tr>
<td>5.</td>
<td>Route of Administration</td>
<td>Topical</td>
<td>Topical</td>
</tr>
<tr>
<td>6.</td>
<td>Treatment Duration</td>
<td>21 days</td>
<td>21 days</td>
</tr>
<tr>
<td>7.</td>
<td>Assessment</td>
<td>daily</td>
<td>Daily</td>
</tr>
<tr>
<td>8.</td>
<td>follow up</td>
<td>daily</td>
<td>Daily</td>
</tr>
</tbody>
</table>

a) Purvakarma - Thalam (Rasnadi Churna)
- Cover the eye with cotton
- Mangalacharan
- Written consent
- Shhirasan

b) Pradhankarma - Shirodhara Vata

<table>
<thead>
<tr>
<th>Duration</th>
<th>-21 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st day</td>
<td>- 60 min</td>
</tr>
<tr>
<td>2nd to 7th day</td>
<td>- addition of 5 min/day</td>
</tr>
<tr>
<td>8th to 15th day</td>
<td>- 90min</td>
</tr>
<tr>
<td>16th to 20th day</td>
<td>- reduction of 5 min/day</td>
</tr>
<tr>
<td>21st day</td>
<td>- 60 min</td>
</tr>
</tbody>
</table>

Kala: - Prathahakala (early morning) for better prognosis.

c) Paschyat karma
- Sprinkles water after completion of Mastudhara.
- Massage with lukewarm oil on head, shoulders etc. of the Patient.

Activities after Mastudhara
- Follow all the Pathya & medicine sequence for days (21 Days) after Mastudhara.
- Indriyanigraha
- Follow Ashtavidha Bramahacharya

Ahara - Hospital made food
Vihara - As per physician

Place of Research
A clinical survey of subjects attending OPD & IPD of Dept.of. Kayachikitsa, D.Y.Patil School of Ayurveda, were included & subjects fulfilling the criteria of diagnosis as per Performa have been selected for the study during the

(i) A Clinical survey of subjects attending OPD and IPD of Department of Kayachikitsa, D. Y. Patil School of Ayurveda Nerul, Navi-Mumbai Mahavidyalaya Hospital, were included and subjects fulfilling the criteria of diagnosis as per the Performa have been selected for the study during the (01 March 2014 to 30th August 2014)


Criteria for Assessment
The improvement in the patient was assessed mainly on the basis of relief in the cardinal symptoms of disease. To assess the effect of therapy objectively, all the symptoms were given scoring depending upon their severity from 0 to 4.

Selection of Patients
40 clinically well diagnosed patients of Depression were selected from OPD & IPD Dept. of Kayachikitsa & Panchakarma, D. Y. Patil School of Ayurveda & Hospital Nerul, Navi- Mumbai & Smt. K. G. M. P Ayu. Mahavidyalaya, Mumbai.

Inclusion Criteria
Subjects fulfilling the following conditions were included.

1. Established cases of Depression were selected for research work.
2. Cases following Hamilton rating scale

Exclusion Criteria:
The following Subjects will be excluded from the study:
Patient with acute & chronic complications of Depression requiring other emergency management were excluded from the study.

Parameters of Study
Parameters of assessment were totally based on the changes in the clinical features of Depression and improvement in Scoring Index of the following Subjective Parameters.
Hamilton Depression Rating Scale (HDRS) [4]

DEPRESSED MOOD (sadness, hopelessness, helplessness, worthlessness)
0- Absent.
1- These feeling states indicated only on questioning.
2- These feeling states spontaneously reported verbally.
3- Communicates feeling states non-verbally, i.e. through facial expression, posture, voice and tendency to weep.
4- Patient reports virtually only these feeling states in his/her spontaneous verbal response.

FEELINGS OF GUILT
0- Absent.
1- Self reproach, feels he/she has let people down.
2- Ideas of guilt or rumination over past errors or sinful deeds.
3- Present illness is a punishment. Delusions of guilt.
4- Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.

SUICIDE
0- Absent.
1- Feels life is not worth living.
2- Wishes he/she were dead or any thoughts of possible death to self.
3- Attempts at suicide (any serious attempt rate 4).

INSOMNIA: EARLY IN THE NIGHT
0- No difficulty falling asleep.
1- Complains of occasional difficulty falling asleep, i.e. more than 1/2 hour.
2- Complains of nightly difficulty falling asleep.

INSOMNIA: MIDDLE OF THE NIGHT
0- No difficulty.
1- Patient complains of being restless and disturbed during the night.
2- Waking during the night – any getting out of bed rates 2 (except for purposes of voiding).

INSOMNIA: EARLY HOURS OF THE MORNING
0- No difficulty.
1- Waking in early hours of the morning but goes back to sleep.
2- Unable to fall asleep again if he/she gets out of bed.

WORK AND ACTIVITIES
0- No difficulty.
1- Thoughts and feelings of incapacity, fatigue or weakness related to activities, work or hobbies.
2- Loss of interest in activity, hobbies or work – either directly reported by the patient or indirect in listlessness, indecision and vacillation (feels he/she has to push self to work or activities).
3- Decrease in actual time spent in activities or decrease in productivity. Rate 3 if the patient does not spend at least three hours a day in activities (job or hobbies) excluding routine chores.
4- Stopped working because of present illness. Rate 4 if patient engages in no activities except routine chores, or if patient fails to perform routine chores unassisted.

RETARDATION [5]
(slowness of thought and speech, impaired ability to concentrate, decreased motor activity)
0- Normal speech and thought.
1- Slight retardation during the interview.
2- Obvious retardation during the interview.
3- Interview difficult.
4- Complete stupor.

AGITATION
0- None.
1- Fidgetiness.
2- Playing with hands, hair, etc.
3- Moving about, can't sit still.
4- Hand wringing, nail biting, hair-pulling, biting of lips.

ANXIETY PSYCHIC
0- No difficulty.
1- Subjective tension and irritability.
2- Worrying about minor matters.
3- Apprehensive attitude apparent in face or speech.
4- Fears expressed without questioning.

ANXIETY SOMATIC [6]
(physiological concomitants of anxiety) such as: gastrointestinal – dry mouth, wind, indigestion, diarrhea, cramps, belching cardio-vascular – palpitations, headaches respiratory – hyperventilation, sighing urinary frequency sweating
0- Absent.
1- Mild.
2- Moderate.
3- Severe.
4- Incapacitating.
SOmatic SYMPTOMS Gastro-intestinal [7]
0- None
1- Loss of appetite but eating without staff encouragement. Heavy feelings in abdomen.
2- Difficulty eating without staff urging. Requests or requires laxatives or medication for bowels or medication for gastro-intestinal symptoms.

GENERAL SOmatic SYMPTOMS
0- None
1- Heaviness in limbs, back or head. Backaches, headaches, muscle aches. Loss of energy and fatigability
2- Any clear-cut symptom rates

GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances)
0- Absent
1- Mild
2- Severe

HYPOCHONDRIASIS
0- Not present
1- Self-absorption (bodily)
2- Preoccupation with health
3- Frequent complaints, requests for help, etc.
4- Hypochondriacal delusions.

LOSS OF WEIGHT (RATE EITHER a OR b) a)
According to the b) According to weekly patient measurements:
0- No weight loss

INSIGHT
0- Acknowledges being depressed and ill
1- Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, etc.
2- Denies being ill at all.

Interpretation :
Score 0-7 – within normal limits
0-20- moderate
>20 severe.

Study Design: A Comparative Clinical study

Sample size: A Minimum of 40 Subjects diagnosed as Depression were selected incidentally and randomly categorized into two groups consisting 20 subjects in each groups.

Assessment criteria
After assessing clinical parameters before and after treatment, the overall effect of the therapy was assessed as under:
Markedly improved: Above 75 percent improvements
Moderately improved: 51 to 75 percent improvements
Mildly improved: 26 to 50 percent improvements
Unchanged: Less than 25 percent improvements

<table>
<thead>
<tr>
<th>Sr.no</th>
<th>Cardinal symptoms</th>
<th>Mean Score</th>
<th>t</th>
<th>P</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Depressed mood</td>
<td>1.9</td>
<td>0.50</td>
<td>10.23</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>2</td>
<td>Feeling of guilt</td>
<td>2</td>
<td>1.25</td>
<td>6.09</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>3</td>
<td>Insomnia</td>
<td>1.9</td>
<td>0.8</td>
<td>8.90</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>4</td>
<td>Work &amp; activity</td>
<td>1.9</td>
<td>0.55</td>
<td>10.28</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>5</td>
<td>Anxiety psychic</td>
<td>1.9</td>
<td>0.45</td>
<td>10.72</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>6</td>
<td>Anxiety somatic</td>
<td>1.9</td>
<td>0.55</td>
<td>10.28</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Table no 2. Overall effect of the therapy in group B

<table>
<thead>
<tr>
<th>Sr.no</th>
<th>Cardinal symptoms</th>
<th>Mean Score</th>
<th>t</th>
<th>P</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Depressed mood</td>
<td>2</td>
<td>1.25</td>
<td>6.097</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>2</td>
<td>Feeling of guilt</td>
<td>2</td>
<td>1.55</td>
<td>3.32</td>
<td>0.0035</td>
</tr>
<tr>
<td>3</td>
<td>Insomnia</td>
<td>2</td>
<td>1.25</td>
<td>6.09</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>4</td>
<td>Work &amp; activity</td>
<td>2</td>
<td>1.15</td>
<td>5.67</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>5</td>
<td>Anxiety psychic</td>
<td>2.15</td>
<td>1.45</td>
<td>6.68</td>
<td>&lt;0.0001</td>
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<tr>
<td>6</td>
<td>Anxiety somatic</td>
<td>2</td>
<td>1.25</td>
<td>6.07</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>
Probable mode of Mastudhara in Depression

Chronic physical disease with or without stress, Anxiety  Mastudhara (Medicated)

Hina, Ati, Mithya yoga of Manas Hetu e.g Bhaya, Krodha  Mastishkagata local & focal effect

Pragyaparadha  Antistress, immunomodulatory action (as Dhatuvsanrakshan)

Imbalance between Dhee, Dhruti, Smruti  Vikrut part of Tama & Raja Nasha [8] (Denourishment of Dysfunction of psychofunction of body) & Sirolaghava

Manas Dosha Prakopa  Vata Pitta Kapha

Protection against psychosomatic changes in improvement of microcirculation by modulation of macrophages function as Sroto Shodhan of mastishka

Manovahā & Ojovahā Srotodushti  Adoptagenic activity improve function of Aagya Chakra

Manovikara (functional disturbance with or with or without organic disease  Elimination of circulatory waste products from major–minor centre of Shirogata Marmas

Manoavasada- depression  Gnyanagni- sarakshanum maintain tissue regeneration (Dhatu-Ojas Vardhan)

Protection against recurrent disturbance of Rajas-Tamas gunas  (Mano-rasayan karma or interpersonal therapy

DISCUSSION

Panchakarma therapy of Ayurveda has attracted the attention of the people worldwide as it is a unique type of treatment of various chronic, auto immune, hormonal, & degenerative disorders where other sorts of treatments have no satisfactory answer as well equally beneficial for the promotion and preservation of health. It is quoted in Sahastrayoga that Takaradhara cures premature Grey hair, fatigue, infirmity and emaciation, headache, lack of vitality, pricking pains of palm and sole, diabetes, lack of proper functioning of the limb, joints, pains in the chest, heart diseases, disgust for food, indigestion, dyspepsia, and diseases of the eyes, nose, throat & ears (Dharakalpa-13). This “DHARA” [9] also alleviates the derangement of the three Doshas and improves the power of all sensory organs. Process of Mastudhara is based on the similar Concept. It is probably acts in following way.

1) Stimulating pineal gland
It is presumed that while giving Mastudhara potential energy of medicated Mastu is propagated in the form of mechanical transverse waves over the forehead which in turn pass over dense cranium,septal & orbitofrontal context thence to midbrain & to Superior calliculi where pineal is actually lies &stimulate it to secrete serotonin whose deficiency results in the pathogenesis of disease.

2) By regulating circadian rhythms
Mastudhara may induce tactile stimulation over forehead & may activate Supraischaemic nuclei (SCN) which is located in hypothalamus & acts as body’s circadian pacemakers.

3) Through Feedback
Biofeedback operates on notion that we have innate capacity & potential to influence autonomic functions of body through exertion of will & mind. It is presumed that” Mastudhara can be applied as a systematized approach for learning relaxation that Furnishes positive feedback of reaching a calmer level of brain wave activity

CONCLUSION

1) The clinical improvement provided by Mastudhara presents window of opportunity in the management of depression. As per Our experience we can give significant symptomatic relief with 3 weeks of treatment.
2) Mastudhara Proves to better than Dhara of placebo drug.

Recommendation for further study - Same study can be repeated in large sample.

We recommend that this procedure should be done in cycles & should be evaluated scientifically using the principles of neurotransmitter.

REFERENCES:


CITE THIS ARTICLE AS –


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