Ayurvedic Management Of Parkinsonism

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INTRODUCTION

The 'Vata' which is the motivator and controller of other two doshas, is responsible for the manifestation of almost all diseases. Vataja nanatmaja[1] vikaras are limited to eighty in various classics, but when we group all the disorders of vata mentioned in various classics, the number exceeds eighty.

Vatavyadhis include major neurological problems. Kampavata being one of them exhibits the symptoms, such as "Karapada tale kampa"[2] (tremors in hands and legs), Dehabhramana[3] (postural instability), Matiksheena[4] (dementia), and Nidrabhanga[5] (sleeplessness) though not complete this description of "Kampavata" is tantamount to Parkinson's disease.

Parkinson's disease as "a clinical syndrome dominated by a disorder of movement consisting of tremor at rest, rigidity, elements of bradykinesia, postural and gait abnormalities[6] associated with a distinctive pathology, consisting of degeneration of pigmented brain stem nuclei including the dopaminergic substantia nigra pars compacta, with the presence of lewy bodies in the remaining cells".[7]

Kampavata[8] (Parkinson's disease) is one of the major cause of disability in the aging society, which usually affects after the age of 50 years. The disease is increasing in its frequency with the world population showing an incidence of 1-2 per 1000 population and has an equal sex distribution. Despite of so many advancements in the field of medicine, treatment of Parkinson's disease remained highly symptomatic. No curative treatment is available. This instills an especial need for ayurvedic management of Kampavata[9] (Parkinson's disease).

There are many general measures explained in the classics for the management of vatavyadhi. Acharya Vangasena while explaining chikitsa sutra of Kampavata, he has advised Basti. Basti karma has been given prime importance in the treatment of vatavyadhi[10]. Matrabasti being a type of snehabasti is considered as Nirapada basti[11]. It is advised in the treatment of vatavyadhis and it can be administered in vriddhavastha without any complications. Mahamasha taila is indicated for shira hasta pada kampa in Bhaishajya Ratnavali[12]. Kapikacchu is having vatahara and rasayana effects on the body[13].

The present study was conducted to study the combined effect of Mahamasha taila Matrabasti and Kapikacchu beeja choorna in Kampavata (Parkinson's disease). 17 patients of Parkinson's disease were grouped into only one group and Mahamasha taila Matrabasti was administered in the dose of 70ml everyday for 9 days and Kapikacchu beeja choorna was given in the dose of 6gm[14] BD for the duration of 48 days.

Objectives:

This study has been conducted to evaluate the combined effect of Mahamasha taila Matrabasti and Kapikacchu beeja choorna in the management of Kampavata (Parkinson's disease).

METHODOLOGY

Materials

The materials taken for the clinical study were.

1. Haritaki choorna[15]
2. Ksheerabala taila [16]
3. Mahamasha taila[17]
4. Kapikacchu beeja choorna [18]

Haritaki choorna: Haritaki choorna prepared by government central Pharmacy, Bangalore was taken from Government Ayurveda Medical college and hospital, Mysore for Anulomana.

Ksheerabala taila: Ingredients of Ksheera bala taila are Ksheera, Bala moola and Tila taila. Ksheerabala taila manufactured by NKCA pharmacy limited, Mysore prepared as per the reference of Ashtanga Hridaya was purchased from NKCA pharmacy Mysore and Datta Ayurvedalaya, Mysore.

Mahamasha taila: Ingredients of Mahamasha taila are Masha, Dashmoola, Ajamamsa, Tila taila, Ksheera Jeevaneeya gana dravyas and prakshepaka dravyas like Kapikacchu, Ashwagandha, Chitraka, Pippali etc… Mahamasha taila prepared by NKCA pharmacy limited, Mysore. prepared as per the reference of Bhaishajya Ratnavali was purchased from NKCA pharmacy, Mysore and Datta Ayurvedalaya, Mysore.

Kapikacchu beeja choorna: Kapikacchu beeja were purchased from Sri. Govindaraj Shetty, Devaraj Urs road, Mysore and Abdur ravof pansari shop, K.T. Street, Mysore. It was made into fine powder, filtered and then used for the present clinical study.

METHODS

Objectives of the study

To evaluate the combined effect of Mahamasha taila Matrabasti and Kapikacchu beeja choorna in Kampavata (Parkinson's disease)

Source of data

A series of 17 patients diagnosed as Kampavata (Parkinson's disease) were selected from OPD, IPD, special camps conducted in GAMC and H, Mysore, and from Neurology OPD, K.R. Hospital, Mysore.. Patients were duly registered and the study was carried out with a specially prepared proforma.

Criteria for selection

Inclusion criteria

▪ Patients with clinical signs and symptoms of Kampavata (Parkinson's disease) were selected.

▪ Patients of either sex were selected.

▪ Both freshly detected and already treated cases were included.

Exclusion criteria

Patients with other systemic disorders and with other complications, which interfere with the treatment, were excluded.

Diagnostic criteria

Diagnosis was made, based on clinical symptoms of Kampavata (Parkinson's disease). Clinical symptoms considered were.

- Tremor – Kampa
- Rigidity – Stambha
- Bradykinesia – Chestasanga
- Gait abnormalities – Gatisanga
- Postural abnormalities – Avanamana

Sampling method and research design

Patients diagnosed as Kampavata (Parkinson's disease) were selected from OPD, IPD, special camps conducted in GAMC and H, Mysore, and from Neurology OPD, K.R. Hospital, Mysore. Patients were grouped into only one group consisting of 17 patients.

Intervention

- 10-15 gms of Haritaki choorna was given on the initial day, at bed time with ushnodaka for Anulomana.
- Sarvanga Abhyanga with Ksheera bala taila followed by Bhashpa sweda was carried out for 9 days.
- Matrabasti was given for 9 days with Mahamasha taila in the dose of 70 ml every day.
- Kapikacchu beeja choorna 6 gm BD with ushnodaka after food, was given as Abhyantara Shamanoushadhi for 48 days, starting from the first day of Matrabasti.

Method of Sarvanga abhyanga, Sweda and Matrabasti

The duration of sarvanga abhyanga, sweda and matrabasti was 9 days. Ksheera bala taila was warmed indirectly and used for abhyanga. Abhyanga was done in 7 postures, in each posture for 5 minutes. So in total sarvanga abhyanga was done for 35 minutes. Which was followed by bhashpa sweda. This procedure of swedana was continued until samyak swinna lakshanas were noticed.

After attaining samyak swinna lakshanas patient was advised to take light food and asked to walk for hundred feet. Then patient was asked to lie down on the table in the left lateral position with right lower limb flexed and resting on the left knee. The head was supported by the patient's left hand. 70 ml of Mahamasha taila was taken in the enema syringe with a capacity of 100 ml and a plain rubber cathetor size No. 12 was connected to the enema syringe. The anal orifice and the inserting end of the rubber cathetor were smeared with Mahamasha taila for lubrication. Then this lubricated end of cathetor was gently inserted at about 4 inches into the rectum parallel to the spinal column. Simultaneously the patient was asked to take

deep breaths while Mahamasha taila was gently passed through the syringe. The cathetor was removed with some amount of taila still remaining in the syringe to prevent the entry of air into the colon. Then the patient was asked to turn into supine position, then his abdomen was gently massaged and buttocks were gently tapped and his palm and sole were rubbed. Then patient was advised to gently lift his lower extremities simultaneously without bending knee for 4-5 times. Patient was asked to remain in supine position with a pillow supporting the kati region at least for one hour. Patient was watched for retention of basti dravya. After evacuation, patients were allowed to take hot water bath and then light food.

Assessment criteria

To assess the efficacy of the treatment, the lakshanas of Kampavata (Parkinson's disease) such as Tremor, Rigidity, Bradykinesia etc. were noted carefully before the commencement of treatment (on the initial day), on 9th day (after matrabasti) and on the 48th day (after shamanoushadhi), ie before, during and after the treatment.

Unified Parkinson Disease Rating Scale (UPDRS) was applied to measure the degree of improvement.

1. Tremor

   T_0 – Absent

   T_1 – Slight and infrequent, not bothersome to patient

   T_2 – Moderate, bothersome to patient

   T_3 – Severe, interferes with many activities

   T_4 – Marked, interferes with all activities.

2. Rigidity

   R_0 – Absent

   R_1 – Slight or only with activation

   R_2 – Mild / Moderate

   R_3 – Marked, full range of motion

   R_4 – Severe

3. Bradykinesia

   B_0 – None

   B_1 – Minimal slowness, could be normal, deliberate

   B_2 – Mild slowness and poverty of movement

   B_3 – Moderate slowness, poverty or small amplitude

   B_4 – Marked slowness, poverty or amplitude

4. Gait

G_0 – Normal

G_1 – Walks slowly, may shuffle with short steps, no festination or propulsion.

G_2 – Walks with difficulty, little or no assistance

G_3 – Severe disturbance, frequent assistance

G_4 – Can not walk

5. Posture

P_0 – Normal erect

P_1 – Slightly stooped, could be normal for older person.

P_2 – Definitely abnormal, moderately stooped, may lean to one side

P_3 – Severely stooped with Kyphosis

P_4 – Marked flexion with extreme abnormality of posture

6. Walking

W_0 – Normal

W_1 – Mild difficulty, may drag legs or decrease arm swing

W_2 – Moderate difficulty, requires no assistance

W_3 – Severe disturbance, requires assistance

W_4 – Can not walk at all even with assistance

7. Dressing

D_0 – Normal

D_1 – Some what slow, no help needed

D_2 – occasional help with buttons or arms in sleeves

D_3 – Considerable help required but can do some things alone

D_4 – Helpless

8. Facial expression

F_0 – Normal

F_1 – Slight hypomymia, could be poker face

F_2 – Slight but definite abnormal diminution in expression

F_3 – Moderate hypomymia, lips parted some of time

F_4 – Masked or fixed face, lips parted ¼ of inch or more with complete loss of expression

9. Depression

DP_0 – Not present

DP_1 – Periods of sadness or guilt greater than normal, never more than a week

DP_2 – Sustained depression for more than one week

DP_3 – Vegetative symptoms (insomnia, anorexia, weight loss)

DP_4 – Vegetative symptoms with suicidality

Overall assessment

Complete relief	–	100% relief
Marked improvement –		>75% relief
Moderate improvement	–	>50% relief
Mild improvement	–	>25% relief
No improvement	–	0-25% relief

Assessment of the patients was made in the following way

Initial assessment – Before commencement of the treatment (Pre test)

Second assessment – On 9th day (after Matrabasti)

Third assessment – On 48th day of the treatment ie after shamanoushadhi (Post test)

The data was collected after each course of treatment. The total score of before treatment, during and after treatment was assessed by using "Chi-square test". Analysis was carried by using SPSS windows (Statistical Presentation System Software) version 10.0 developed by SPSS. Inc, New York (1999).

OBSERVATION AND RESULTS

In the present clinical study 17 patients were sampled into single group. The observations made during the study were as follows.

Table No.1. Showing the Age Incidence

Age in years	Frequency	Percent
31-40 years	1	5.9 %
41-50 years	3	17.6 %
51-60 years	3	17.6 %
61-70 years	6	35.3 %
71-80 years	4	23.5 %
Total	17	100.0 %

More number of Patients were observed in the 6th decade.

Table No.2. Showing Sex Incidence

Sex	Frequency	Percent
Male	13	76.5 %
Female	04	23.5 %
Total	17	100.0 %

Out of 17 Patients 13 were males and remaining 4 were females

Table No.3. Showing the Educational Qualification

Education	Frequency	Percent
Illiterate	8	47.1 %
Primary	5	29.4 %
High School	2	11.8 %
PUC	2	11.8 %
Total	17	100 %

Number of illiterate patients were seen to be more in the present study.

Table No.4. Showing the Incidence of Occupation

Occupation	Frequency	Percent
Agriculturist	6	35.3 %
Retired	5	29.4 %
House wives	4	23.5 %
Others	2	11.8 %
Total	17	100.0 %

Out of 17 patients, most of them were Agriculturists next comes Retired persons and Housewives.

Table No.5. Showing the Incidence of Religion

Religion	Frequency	Percent
Hindu	15	88.2 %
Muslim	02	11.8 %
Total	17	100.0 %

Maximum number of patients were belonging to Hindu religion

Table No.6. Showing the Incidence of Area

Area	Frequency	Percent
Urban	09	52.9 %
Rural	08	47.1 %
Total	17	100.0 %

More number of Patients were from urban locality

Table No.7. Showing the Incidence of Fresh / Treated cases

Case type	Frequency	Percent
Fresh	09	52.9 %
Treated	08	47.1 %
Total	17	100.0 %

Among 17 Patients, 9 Patients were freshly detected

Table No.8. Showing the Incidence of Socio-Economical status

Socio-Economical Status	Frequency	Percent
Poor	07	41.2 %
Middle class	10	58.8 %
Rich	-	-
Total	17	100.0 %

Maximum numbers of Patients were from Middle class families

Table No.9. Showing the Incidence of Food Habit

Food habit	Frequency	Percent
Vegetarian	04	23.5 %
Mixed	13	76.5 %
Total	17	100.0 %

Most of the patienst were habituated to mixed diet.

Table No.10. Showing the Incidence of Chronicity of the disease

Chronicity	Frequency	Percent
Less than 1 year	06	35.3 %
1-2 years	07	41.1%
2-3 years	02	11.8%
3-4 years	01	5.9%
4-5 years	01	5.9 %
Total	17	100.0 %

More number of patients were observed to be having the chronicity between 1 to 2 years.

Table No.19. Showing the Incidence of Presenting symptoms

Symptoms	Frequency	Percent
Tremor	17	100.0 %
Rigidity	15	88.2 %
Bradykinesia	17	100.0 %
Festinant gait	07	41.2 %
Stooped posture	16	94.1 %
Expression less face	17	100.0 %
Depression	17	100.0 %
Disturbed sleep	07	41.2 %
Constipation	10	58.8 %

RESULTS

The data regarding symptoms of the samples were colleted and graded according to Unified Parkinson Disease Rating Scale (UPDRS). The parameters were assessed before, during and after completion of the treatment. The results were analysed by using "Chi-Square test"

Table No.20. Observation on results of Tremor – Kampa

	Absent T_0	Slight T_1	Moderate T_2	Severe T_3	Marked T_4	Total
BT	-	-	10 58.8%	6 35.3 %	1 5.9 %	17 100.0 %
DT	-	1 5.9 %	9 52.9 %	6 35.3 %	1 5.9 %	17 100.0 %
AT	-	10 58.8 %	4 23.5 %	2 11.8 %	1 5.9	17 100.0 %

Symmetric Measurse

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.545	.001
No. of valid cases	-	51	-

Out of 17 patients 10(58.8 %) patients had moderate tremor, 6(35.3 %) with severe and 1(5.9 %) patient had marked tremor. During treatment there was no much improvement in the tremor. After completion of the treatment 10(58.8 %) patients were shifted to the grading slight tremor, 4 (23. 5%) patients had moderate tremor, 2(11.8%) patients with severe tremor and only 1(5.9%) patient remained with marked tremor.

The results obtained regarding the parameter tremor showed significance statistically with the 'P' value <0.05.

Table No.11. Observation on results of Rigidity – Stambha

	Absent R_0	Slight R_1	Moderate R_2	Severe R_3	Marked R_4	Total
BT	2 11.8 %	7 41.2 %	5 29.4 %	3 17.6 %	-	17 100.0 %
DT	9 52.9 %	5 29.4 %	2 11.8 %	1 5.9 %	-	17 100.0 %
AT	12 70.6 %	3 17.6 %	2 11.8 %	-	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.464	.030
No. of valid cases	-	51	-

After completion of the course of Sarvanga Abhyanga, Sweda and Matrabasti 7(41.2 %) patients completely relieved from rigidity 5(29.4%) had slight rigidity 2(11.8%) patients with mild rigidity. After completion of the treatment 10(58.8%) completely relieved from rigidity. 3(17.6%) patients had slight rigidity and 2(11.8%) patients had mild to moderate rigidity. Which showed significance statistically with 'P' value <0.05.

Table No.12. Observation on Results of Bradykinesia – Chestasanga

	None B_0	Minimal B_1	Mild B_2	Moderate B_3	Marked B_4	Total
BT	-	2 11.8 %	10 58.8 %	3 17.6 %	2 11.8 %	17 100.0 %
DT	-	6 35.3 %	6 35.3 %	3 17.6 %	2 11.8 %	17 100.0 %
AT	2 11.8 %	10 58.8 %	3 17.6 %	2 11.8 %	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.483	.050
No. of valid cases	-	51	-

After completion of the treatment, 2(11.8%) patients completely relieved from Bradykinesia, 10(58.8%) patients were shifted minimal slowness, 3(17.6%) patients had mild slowness, where as 2 (11.8%) patients had moderate bradykinesia. The result showed significance statistically with the 'P' value <0.05.

Table No. 13. Showing Observation on results of Gait – Gatisanga

	Normal G_0	Short steps G_1	Festination G_2	Severe G_3	Can not walk G_4	Total
BT	-	9 52.9 %	6 35.3 %	2 11.8 %	-	17 100.0 %
DT	-	10 58.8 %	6 35.3 %	1 5.9 %	-	17 100.0 %
AT	1 5.9 %	14 82.4 %	1 5.9 %	1 5.9 %	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.361	.267
No. of valid cases	-	51	-

Out of 17 patients, 2(11.8%) patients had severe disturbance of gait 6(35.3%) patients with festination and 9(52.9%) patient had short stepping gait. During treatment no much improvement was seen. After completion of the treatment 1(5.9%) patient became normal. 14(82.4%) patients were having short stepping, slow gait, 1(5.9%) patient with festination and 1(5.9%) patient with severe disturbence in gait. Statistically results obtained regarding the parameter gait showed non-significance.

Table No.14. Observation on results of Posture – Avanamana

	Normal erect P_0	Slightly stooped P_1	Moderately stooped P_2	Severely stooped P_3	Marked flexion P_4	Total
BT	1 5.9 %	10 58.8 %	6 35.3 %	-	-	17 100.0 %
DT	1. 5.9 %	10 58.8 %	6 35.3 %	-	-	17 100.0 %
AT	1 5.9 %	10 58.8 %	6 35.3 %	-	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.000	1.000
No. of valid cases	-	51	-

There was no improvement in the posture of the patients in the present clinical study. Which showed non-significant results statistically.

Table No.15. Observation on Results of Walking

	Normal W_0	Mild difficulty W_1	Moderate difficulty W_2	Severe disturbance W_3	Cannot walk W_4	Total
BT	-	6 35.3 %	8 47.1 %	3 17.6 %	-	17 100.0 %
DT	1 5.9 %	7 41.2 %	6 35.3 %	3 17.6 %	-	17 100.0 %
AT	2 11.8 %	12 70.6 %	2 11.8 %	1 5.9 %	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.390	.167
No. of valid cases	-	51	-

Among 17 patient2 6(35.3%) patient had mild difficulty in walking 8(47.1%) patients had moderate difficulty and 3(17.6%) patients with severe disturbance. After completion of the treatment 2(11.8%) patients completely relieved from the difficulty in walking. 12(70.6%) patients had mild difficulty, 2(11.8%) had moderate and 1(5.9%) patient had severe disturbance in walking. Though statistically it showed non-significant result, but clinically patients felt better in their walking after the course of Sarvanga Abhyanga, Sweda and Matrabasti.

Table No. 16. Observation on Results of Dressing

	Normal D_0	Slow D_1	Occasional Help D_2	Considerable help D_3	Helpless D_4	Total
BT	1 5.9 %	6 35.3 %	7 41.2 %	3 17.6 %	-	17 100.0 %
DT	2 11.8 %	8 47.1 %	4 23.5 %	3 17.6 %	-	17 100.0 %
AT	6 35.3 %	8 47.1 %	3 17.6 %	-	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.403	.129
No. of valid cases	-	51	-

Among 17 patients, 16(94.1%) patients had difficulty in their dressing. After completion of the treatment 6(35.3%) patients completely relieved from the problem of dressing. 8(47.1%) patients had mild slowness in their dressing and 3(17.6%) patient needed occasional help for their dressing. Statistically the result obtained is non-significant.

Table No.17. Observation on Results of Facial expression

	Normal F_0	Poker face F_1	Slight diminution F_2	Moderate diminution F_3	Masked face F_4	Total
BT	-	6 35.3 %	9 52.9 %	2 11.8 %	-	17 100.0 %
DT	3 17.6 %	6 35.3 %	7 41.2 %	1 5.9 %	-	17 100.0 %
AT	5 29.4 %	11 64.7 %	1 5.9 %	-	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.477	.020
No. of valid cases	-	51	-

Out of 17 patients, 6(35.3%) patients had poker face, 9(52.9) patients had slightly diminished facial expression. 2(11.8%) patients had moderately diminished facial expression. During treatment facial expression of 3(17.6%) patients become normal. After completion of the treatment 5(29.4%) patients gained normal facial expression, 11(64.7%) patients had slight diminution in their facial expression and only 1(5.9%) patient had abnormal diminution of facial expression. Which showed statistically significant results with 'P' value < 0.05.

Table No. 18. Observation on results of Depression – Vishāda

	Not present DP_0	Not more than a week DP_1	More than one week DP_2	Vegetative Symptoms DP_3	Suicidality DP_4	Total
BT	-	11 64.7 %	6 35.3 %	-	-	17 100.0 %
DT	6 35.3 %	11 64.7 %	-	-	-	17 100.0 %
AT	16 94.1 %	1 5.9 %	-	-	-	17 100.0 %

Symmetric Measures

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	.656	.000
No. of valid cases	-	51	-

Before treatment, 11(64.7%) patients were having periods of sadness which was never more than one week, 6(35.3%) patients had sustained depression for more than one week. After completion of the treatment 16(94.1%) patients got complete relief from depression. The results obtained regarding depression showed highly significant result with 'P' value <0.001.

Overall Assessment

By observing overall assessment it can be analysed that 10 (58.8%) patients got marked relief, 6 (35.3%) patients got moderate relief and 1 (5.9%) patient got mild relief in the present clinical study.

CONCLUSION

Based on the literature and observations made in this clinical study, following conclusions can be drawn.

- Kampavata (Parkinson's Disease) is a burning problem in age old society for which curative treatment is still under research

- Specific etiology was not elicited in any of the patients reported for the present study. So all these cases can be included under the variety of idiopathic Parkinson's disease.

- Before actual onset of tremor, some patients noticed internal feeling of tremulousness, aches and pains, fatigue, cramps of thigh and calves which can be inferred as poorvaroopa for Kampavata.

- Lakshanas mentioned for Kampavata in classics are very vague, so to arrive at proper diagnosis symptoms explained for Parkinson's disease in allied science can also be considered.

- Tremor, rigidity, bradykinesia, gait abnormalities and postural abnormalities being cardinal features of the disease, were noticed in majority of the patients.

- Parkinson's disease most often first appears during persons 50s or 60s, but in the present study it was noticed that 4 patients were suffering from the disease during 3rd and 4th decades which reveals that the disease can occur in earlier age also.

- An observational study was conducted on a single group of 17 patients to assess the combined effect of Mahamasha taila Matrabasti and Kapikacchu beeja choorna in Kampavata (Parkinson's disease).

- The measures selected for the study are found to be beneficial in the initial stage of the disease, where the chronicity was less than or equal to one year.

- Compared to other symptoms, moderate improvement was observed in rigidity, walking and dressing in the very initial period of treatment during sarvanga abhyanga, sweda and Matrabasti.

- The therapy had no effect on the stooped posture.

- In the present study 10 (58.8%) patients got marked relief, 6 (35.3%) patients got moderate relief and 1 (5.9%) patient got mild relief.

- Though the management helped in achieving moderate to marked improvement it was not successful in giving a complete cure.

SUMMARY

Kampavata is one of the vatavyadhi, clinical features of which simulates to that of Parkinson's disease mentioned in allied science.

Parkinson's disease is one of the major cause of disability in the aging society affects 1-2 out of every 1,000 people in the world, usually after the age of 50 years.

Inspite of many advancements in the Medical Science the treatment of Parkinson's disease remained highly symptomatic. No curative treatment is available. So there is a continuous search for convenient, safe and effective remedy for the disease.

Many measures have been told in the classics for the treatment of Kampavata.

The present study was undertaken to evaluate the combined effect of Mahamasha taila Matrabasti and Kapikacchu beeja choorna in the management of Kampavata (Parkinson's disease).

Study was divided into 2 sections namely, Review of literature and Methodology.

Review of literature consists of historical review, vyutpatti, paribhasha, bheda, rachana and kriya shareera of shiras, nidana panchaka, upashayanupashaya, sapeksha nidana, sadhyasadhyata, chikitsa, pathyapathya, berief review of drugs used in the study and their probable mode of action with appropriate modern interpretations.

The second part mainly concentrates on the subject related to the clinical trial. It includes methodology, observations and results, discussion on observation and results, conclusion and also recommendation for future study.

The study was an observational study conducted on a single group of 17 patients who were selected incidentally. Subjective parameters were assessed before, during and after the treatment.

The clinical diagnosis was done on the symptomatology such as treamor, rigidity, bradykinesia etc…

All the patients received Haritaki choorna for Anulomana on the initial day. Sarvanga abhyanga with Ksheerabala taila, Bhashpa Sweda followed by Mahamasha taila Matrabasti in the dose of 70 ml per day was administered for 9 days. 6gm BD of Kapikacchu beeja choorna was given after food with ushnodaka for 48 days starting from the first day of Matrabasti.

The parameters were assessed before treatment after 9 days (after Matrabasti) and after 48 days (after completion of Shamanoushadhi), scores of all the parameters were analysed statistically by using 'Chi – Square test'.

The observation were done on the factors like age, sex, occupation, religion, educational status, socio-economical status, chronicity, presenting symptoms and general observations during the treatment were also done.

Among 17 patients, 10 patients got marked improvement, 6 patients got moderate improvement and only one patient got mild improvement and none of the patients were cured completely.

LIST OF REFERENCES

1.   Agnivesha, Charaka Samhita, Ayurveda Dipika Commentary of Chakrapanidatta revised by Charaka and Dridhabala, Edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambha Sanskrit Bhavan, Varanasi. 5th edition, 2001, pp-105-113

2.   Sushruta, Srshruta Samhita, Nibhandha Sangraha commentary of Dalhanacharya and Nyayachandrika commentary of Gayadas, Edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambha Sanskrit Series, Varanasi 2004, pp- 373

3.   Sushruta, Srshruta Samhita, Nibhandha Sangraha commentary of Dalhanacharya and Nyayachandrika commentary of Gayadas, Edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambha Sanskrit Series, Varanasi 2004, pp564-567.

4.   Vaidyavarashreebasavaraj, Shasta Prakarana, In : Basavarajeeyam, Edtd. by Sri. Govardhana Sharma, 1st Ed. Gorakshana Yantralaya – Nagpur, 1978 : pp.100-101.

5.   Sir Monier Williams, Sanskrit English Dictionary Cognate Indo European Languages, Published by Motilal Banarasi Das, 1st edition, 1990.

6.   Sir Stanley Davidson et al., Diseases of Nervous System, Davidson's Principles and Practices of Medicine, Prof. Christopher Haslett, Prof.Edwin R. Chilvers, Prof. John A.A. Hunter, Dr. Nicholas A. Boon, Editors, 18th Ed. Churchill Livingstone Publishers, 1999 : pp.988-990.

7. Parkinson's disease and Related Disorders – Current Concepts and Treatment.

8. Bhela, Shiroroga Chikitsa, In : Bhelasamhita, Sri. Girijadayalu Shukla, Editor, 1st Ed. Chowkambha Vidya Bhavan, 1959 : pp.208 – 209.

9. Bramhashankara Mishra, Vatavyadhi Chikitsa, 575th Shloka, In : Bhaishajya Ratnavali, Sri.Ambikadatta shastri (commentary), Sri. Rajeshwara Datta Shastri, Editors, 2nd Ed. Chowkambha Orientalia, 1961 : pp.413-414.

10. Vaidyavarashreebasavaraj, Shasta Prakarana, In : Basavarajeeyam, Edtd. by Sri. Govardhana Sharma, 1st Ed. Gorakshana Yantralaya – Nagpur, 1978 : pp.100-101.

11. Agnivesha, Charaka Samhita, Ayurveda Dipika Commentary of Chakrapanidatta revised by Charaka and Dridhabala, Edited by Vaidya Jadavaji Trikamji Acharya, Chowkhambha Sanskrit Bhavan, Varanasi. 5th edition, 2001, pp677-686

12. Bramhashankara Mishra, Vatvyadhi Chikitsa, Bhaishajya Ratnavali, Sri.Ambikadatta shastri (commentary), Sri. Rajeshwara Datta Shastri, Editors, 2nd Ed. Chowkambha Orientalia, 1961 : pp.390, 412, 413, 414.

13. Vagbhata, Ashtanga Hridayam, Sarvanga Sundara Commentary of Arunadatta, Ayurveda Rasayana Commentary of Hemadri, Edited by Bhishagacharya Harishastri Paradkar, Chowkhambha Sanskrit Samsthan, 8th edition, 2000, pp-193-201

14. Bhavamishra, Poorva Khanda, Nighantu Bhaga, Bhavaprakash, Vidyotini Hindi (Commentary), Part-I, Pandit Bramha Shankar Mishra, Editors, 5th Ed. Chowkambha Sanskrit Series, 1969 : pp.5, 357-358.

15. B.P. Poorva Khanda, Haritakyadi varga Bhavamishra, Poorva Khanda, Nighantu Bhaga, Bhavaprakash, Vidyotini Hindi (Commentary), Part-I, Pandit Bramha Shankar Mishra, Editors, 5th Ed. Chowkambha Sanskrit Series, 1969 : pp.5, 357-358.

16. Vagbhata, Ashtanga Hridayam, Sarvanga Sundara Commentary of Arunadatta, Ayurveda Rasayana Commentary of Hemadri, Edited by Bhishagacharya Harishastri Paradkar, Chowkhambha Sanskrit Samsthan, 8th edition, 2000, pp-219, 732

17. Bramhashankara Mishra, Vatavyadhi Chikitsa, Bhaishajya Ratnavali, Sri.Ambikadatta shastri (commentary), Sri. Rajeshwara Datta Shastri, Editors, 2nd Ed. Chowkambha Orientalia, 1961 : pp., 414.

18. Dr. J.L.N. Shastry, Study of Essential Medicinal Plants in Ayurveda, Dravyaguna Vignana, Chowkhambha Orientalia, Varanasi 2nd edition 2005, pp- 175-178.