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A COMPARATIVE STUDY OF KULATHA PINDSWEDA & MASHA PINDASWEDA IN THE MANAGEMENT OF PAKSHAGHATA

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ABSTRACT

Disorders of the nervous system cause more dependency than disorders of any other systems of the body, partly because of the range and pattern of physical functions that can be affected. Just like the two wings of a bird, left and right sides of the body play an important role in the following spheres viz: maintenance of posture, co-ordination of different movements, and execution of different works. If the bird loses its one wing it is unable to fly and even live because of deprived mobility. It applies to human being more or less in the same way when they are affected by the stroke phenomena. *Pakshaghata*is aloss of voluntary functions of one side of the body being a *Vatavyadhi Pakshaghata*is a *Maharoga. Swedana*is considered as one of the major treatment for *Pakshaghata*. In all types of *vatavyadhi, snehana* and *swedana* are prescribed as common line of treatment. Different kinds of *swedana*are mentioned for *vatavyadhi. Pindasweda serves* purpose of alleviation of vitiated*vatadosha*. Among various types of *Pindaswedadravyas, Masha & Kulattha*are also mentioned. Hence here an attempt was made to assess the efficacy of *KullathaPindasweda & Mashapindasweda*in signs & symptoms of *Pakshaghata,* along with the comparison in between these two *pindasweda.* It was a comparative study to assess the pre and posttest design where minimum of 15 patients each suffering from *Pakshaghata* were selected and randomly distributed to *KulatthaPindasweda (KP) & Masha Pindasweda (MP)* group. Both *pindasweda* were done for period of 7 days, there was no significant improvement seen in any of the neurological parameters except the muscle tone in hands and legs. The improvement in all the parameters was same in both the groups.

Keywords: *Pakshaghata, Pindasweda, Stroke, Masha, Kulatha*

INTRODUCTION

There is an interesting status of constitution called as *Gandharva kaya*. This represents a clan of individuals who are fond of singing, dancing etc. There is another group of constitution where in total idle mental makeup may be identified *(Pashu kaya).* The suggestion is simple – man wants to go for diversified actions like singing, dancing to simply lie idle, for all such activities harmony of central nervous system and musculoskeletal system is the minimum requirement.Stroke is defined as 'rapidly developing clinical signs of focal (or global) disturbance of cerebral function, with symptoms lasting 24 hrs or longer, or leading to death, with no apparent cause other than of vascular origin'. This definition includes stroke due to either

cerebral infarction or intracerebral and subarachnoid haemorrhage. Stroke is responsible for a great burden of disability in the community. In developed countries, stroke is third leading cause of death ranking behind heart diseases & cancers. Approximately one person in six will die as a consequence of cerebrovascular disease. Due to the increasing life span, urbanization and changing life style, stroke is already a major public health problem in India. It is likely to assume epidemic proportion in the coming years and cause enormous strain on India's limited health care resources.

*Pakshaghata*may be co-related with the stroke phenomena, where in either left or right side of the body loses its function in different degrees. It is a disease where the *vatadosha* is predominantly disorganized. *Vatavyadhis* are considered as *dushchikitsya* and *Pakshaghata* is one among the *nanatmaja Vatavyadhis* [1] and is considered as a *maharoga.Swedanakarma* helps a lot in this regard [2]. The presently selected *Kulattha*&*Masha,* which are *swedopaga*in nature.[3] interestingly the medicines which are selected for *Pindasweda* are mostly *aaharadravya*. Being the largest organ of the body, skin is having an added advantage of large surface area for absorption of medicine. In case of *Pindasweda* this happens. As these are *aaharadravya* the efficacy of medicine is minimum, while the procedural improvement is much.

Present study revealed that the clinical efficacies of the medicines *(Kulattha & Masha)* are alike. Probably availability played an important role in identifying two distinct *aaharadravya* for *Pindasweda.* Apart from that the qualities of *Kulattha & Masha* quiet antagonistic [4]; this may be considered for the treatment of

snigdha&*ruksha* predominant featured patients. Author opines that, further other grains may also be used for the *Pindasweda* depending upon availability and relevance.

OBJECTIVES OF THE STUDY

1. To evaluate the efficacy of *KulatthaPindasweda* and *Masha Pindasweda* clinically.
2. To compare the efficacy of *KulatthaPindasweda* and *Masha Pindasweda.*

PATIENTS AND METHOD

Source of data: A minimum of 30 patients, 15 each in the *KulathaPindasweda (KP) & Masha Pindasweda (MP)* group, suffering from *Pakshaghata* were taken from IPD of SDM Ayurveda Hospital Kuthpady, Udupi. Method of collection of the data: It is a comparative study to assess the efficacy of *Kulatha & Masha Pindasweda* in *Pakshaghata* where in, patients of either sex were selected randomly. A special proforma containing details of history, signs, symptoms & examinations as mentioned in our classics & allied sciences was prepared for the study.

INCLUSION CRITERIA

- Patients suffering from *Pakshaghata.*
- Patients who are fit for *Swedana.*

EXCLUSION CRITERIA

- Signs & Symptoms of *Pakshaghata*, with evidence of cerebral Infection, space occupying lesions & trauma.
- Patients with T.I.A.
- Patients with Diabetes Mellitus, Hypertension and IHD.

INVESTIGATIONS

- Hb%, TC, DC, ESR & RBS
- Serum electrolytes & creatinine
- Blood urea
- ECG & CT Scan if needed.

STUDY DESIGN: It is a comparative study to assess the pre and post test design where minimum of 15 patients each

suffering from *Pakshaghata* were selected and randomly distributed to *KulathaPindasweda (KP)* & *Masha Pindasweda (MP)* group.

Duration of treatment: 07 days

Total duration of study: 07 days

INTERVENTIONS

Poorvakarma: SarwangaAbhyanga with *Murchitatilataila* and the duration of *Abhyanga* was about 30 minutes.

Pradhanakarma:

- In KP Group – *KulatthaPindasweda* was carried out for about 30 minutes.
- In MP Group – *Masha Pindasweda* was carried out for about 30 minutes.

Paschatakarma:

Parihara Vishaya of *swedana.*

ASSESMENT CRITERIA

Patients were assessed before and after the interventions on the basis of subjective and objective parameters.

Subjective parameters

- Symptoms of *Pakshaghata*
- Symptoms of *SamyakSwedanaLakshanas*

Objective parameters It was assessed by Neurological mapping

Finger Movement	Score	Finger Movement	Score
No movement	0	No movement	0
Slight movement	1	Slight movement	1
Unable to hold the object	2	Unable to hold the object	2
Able to hold with less power	3	Able to hold with less power	3
Normal	4	Normal	4
Lifting of arm at Shoulder	**Score**	**Muscle tone**	**Score**
No	0	No increase	0
Upto 45	1	Slight increase with catch and release	1
Upto 90	2	Minimal resistance through range following catch	2
Upto 135	3	More marked increase tone through Range of movement with difficulty	3
Upto 180	4	Considerable increase in tone, passive movement difficult	4
Lifting of leg at Hip joint	**Score**	Affected part rigid	5
No	0	**Muscle strength**	**Score**
Upto 45	1	Normal power	5
Upto 90	2	Diminished	4
Sitting from lying down	**Score**	Movement against gravity	3
Unable	2	Movement with gravity eliminated	2
With support	1	Flicker with attempting movement	1
Without support	0	No movement	0
Standing from sitting	**Score**	**Drooping of Wrist/Foot**	**Score**
Unable	2	Full	0
With support	1	Moderate	1

Without support	0	Slight	2
Paper holding	**Score**	No	3
Normal	2	**Loss of Speech**	**Score**
Patient holds gently	1	Global aphasia	4
Patient fails to hold paper	0	Utter voice	3
Reflexes	**Score**	Speak few words	2
Absent	0	Speak with difficulty	1
Present	1	Normal	0
Brisk	2		
Very Brisk	3		
Clonus	4		

Table: 01 Neurological mapping

OBSERVATIONS

Incidence - As per the prepared proforma, observations were made regarding the incidence of Age, sex, occupation, religion, socio-economic status, marital status, etc.

Table: 02 Observations

Observations	Maximum Distribution					
	KP	**%**	**MP**	**%**	**Total**	**%**
Age Group	60-69	40	50-59	33.3	50-69	60
Sex	Male	53.4	Male	60	Male	56.67
Religion	Hindu	100	Hindu	86.6	Hindu	93.33
Education	Primary	60	Primary	40	Primary	50
Marital Status	Married	93.3	Married	73.4	Married	83.33
Socioeconomic	Poor	46.6	Poor	60	Poor	53.34
Occupation	Agri	40	Agri	33.3	Agri	36.67
Habitat	Anupa	100	Anupa	93.3	Anupa	96.67
Diet	Mixed	93.3	Mixed	86.6	Mixed	90
Nidra	Sound	60	Disturbed	86.6	Disturbed	63.33
Bowel habit	Irregular	73.4	Irregular	100	Irregular	86.67
Bladder Habit	Irregular	66.6	Irregular	53.3	Irregular	60
Addiction	Addicted	73.4	Addicted	60	Addicted	66.6
Prakriti	VP	66.7	PK	60	VP	53.4
Satwa	Madhyam	93.3	Madhyam	86.6	Madhyam	90
Sara	Meda&Asthi	33.3	Meda	33.3	Meda	33.3
Samhanan	Madhyam	73.3	Madhyam	73.3	Madhyam	73.3
RasSatmya	Two	60	Three	53.4	Two	53.4
Aahar Shakti	Madhyam	80	Madhyam	53.4	Madhyam	66.6
Jaran Shakti	Avar	53.3	Avar	60	Avar	56.6
Vyayam Shakti	Avar	100	Avar	100	Avar	100
Vaya	Vridhha	60	Vridhha	60	Vridhha	60
Onset	Sudden	80	Sudden	100	Sudden	90
Side Affected	Left	53.3	Right	53.3	L & R	50

Table: 03 Predominant *Lakshanas*

Features	KP	%	MP	%	Total	%
Karma Kshaya	07	46.6	08	53.4	15	50
Karma Hani	08	53.4	07	46.6	15	50
Vaksthambh	07	46.6	06	40	13	43.33
Sankocha	11	73.3	13	86.6	24	80
Ruja	11	73.3	08	53.3	19	63.33
Shotha	04	26.6	04	26.6	08	26.6

Table: 04 *SamyakSwinnaLakshanas*

SamyakSwinnaLakshanas	Average Days in %	
	KP	**MP**
SheetaVyuparam	0.867	0.467
ShoolaVyuparam	4.133	2.2
SthambhaNigraha	5.067	3.733
GauravNigraha	5.33	4.2
TwakMardavta	6.867	6.533
SwedaSrava	07	07
Laghutwa	5.4	5.8

Table: 05   Results

Parameters	KP Group			MP Group		
	Diff	**%**	**P**	**Diff**	**%**	**P**
Deep Tendon Reflexes	0.000	0	1	0.000	0	1
Power – Shoulder	0.000	0	1	0.000	0	1
Power – Elbow	0.000	0	1	0.000	0	1
Power – Wrist	0.000	0	1	0.000	0	1
Power – MCP & IP	0.000	0	1	0.000	0	1
Power - Hip	0.000	0	1	0.000	0	1
Power – Knee	0.000	0	1	0.000	0	1
Power – Ankle	0.000	0	1	0.000	0	1
Power – MT & IP	0.000	0	1	0.000	0	1
Finger Movements	0.000	0	1	0.000	0	1
Toe Movements	0.000	0	1	0.000	0	1
Lifting of arm at shoulder	0.000	0	1	0.000	0	1
Lifting of Leg at Hip	0.000	0	1	0.000	0	1
Sitting from lying down	0.000	0	1	0.000	0	1
Standing from sitting	0.000	0	1	0.000	0	1
Drooping Wrist	0.000	0	1	0.000	0	1
Drooping Foot	0.000	0	1	0.000	0	1
Loss of speech	0.000	0	1	0.000	0	1
Paper holding in finger	0.000	0	1	0.000	0	1

Table: 06 Effect on Muscle tone of Upper limb: KP Group

N	BT	AT	Diff. in Mean	%	Paired 't' Test			
					S.D.	S.E.M.	't'	P
15	2.333	1.467	0.867	37.162	0.352	0.0909	9.539	<1.000

Table: 07 Effect on Muscle tone of Upper limb: MP Group

N	BT	AT	Diff. in Mean	%	Paired 't' Test			
					S.D.	S.E.M.	't'	P
15	1.800	1.000	0.800	44.44	0.414	0.107	7.483	<1.000

Effect on Muscle tone of Upper limb: Graph 01
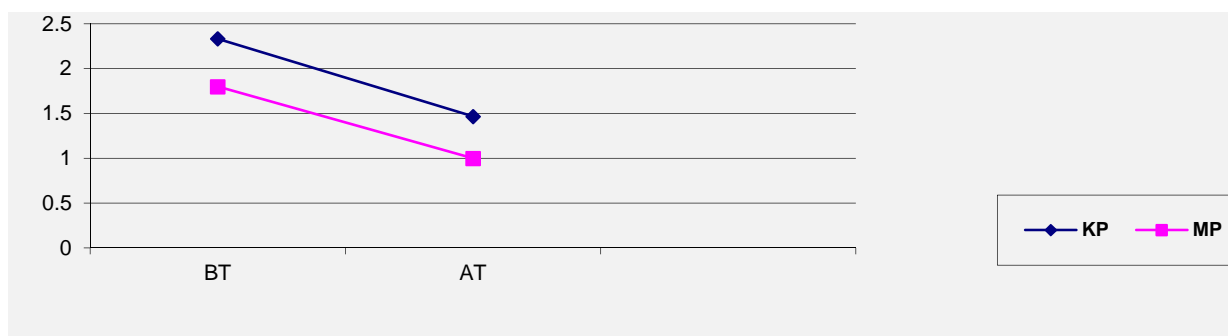
Table: 08 Effect on Muscle tone of Lower limb: KP Group

N	BT	AT	Diff. in Mean	%	Paired 't' Test			
					S.D.	S.E.M.	't'	P
15	2.200	1.333	0.867	39.40	0.352	0.0909	9.539	<1.000

Table: 09 Effect on Muscle tone of Lower limb: MP Group

N	BT	AT	Diff. in Mean	%	Paired 't' Test			
					S.D.	S.E.M.	't'	P
15	1.667	0.933	0.733	43.97	0.458	0.118	6.205	<1.000

Effect on Muscle tone of Lower limb – Graph- 02
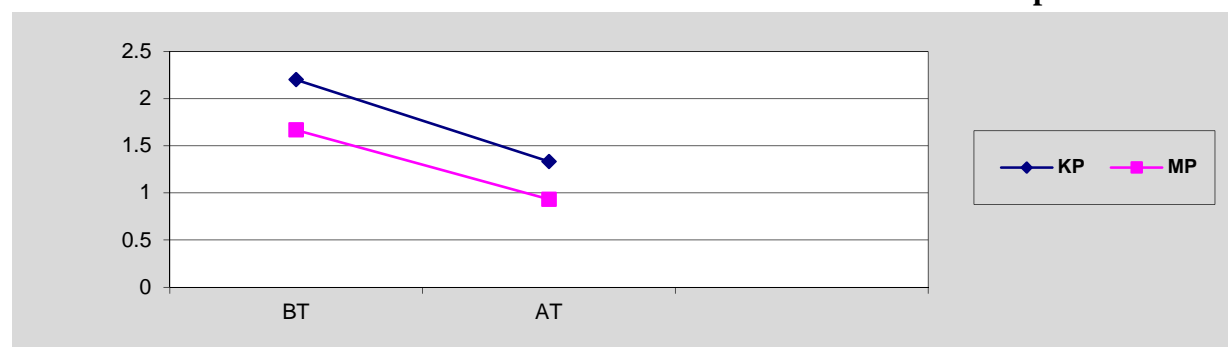
Table: 10 Comparison in between KP & MP Group

Parameters	Mean		Difference	P
	KP	MP		
Power – Shoulder	2.067	1.733	0.334	0.462
Power – Elbow	1.800	1.667	0.133	0.804
Power – Wrist	1.600	1.553	0.047	0.898
Power – MCP & IP	1.333	1.467	0.134	0.796

Power - Hip	2.200	2.067	0.133	0.785
Power – Knee	2.533	2.400	0.133	0.785
Power – Ankle	1.667	2.067	0.400	0.421
Power – MT & IP	1.467	1.933	0.466	0.359
Finger Movements	1.067	1.333	0.266	0.590
Toe Movements	1.133	1.467	0.334	0.459
Lifting of arm at shoulder	1.000	1.533	0.533	0.292
Lifting of Leg at Hip	1.000	1.200	0.200	0.615
Sitting from lying down	1.067	1.400	0.333	0.183
Standing from sitting	1.000	1.400	0.400	0.100
Drooping Wrist	1.467	1.267	0.200	0.548
Drooping Foot	1.467	1.333	0.134	0.327
Loss of speech	0.600	0.800	0.200	0.574
Muscle tone - Hand	1.467	1.000	0.467	0.292
Muscle tone – Leg	1.333	0.933	0.400	0.268
Paper Holding	0.400	0.533	0.133	0.646

DISCUSSION

- Position of the patients: There are seven different types of positions mentioned for performing *pindasweda* but in this study it was seen that it was possible to do *pindasweda* in two positions only i.e. Prone and Supine, and were mainly considered for keeping the debilitated patients comfortable.

- Pressure of the Bolus: It was seen that it was easier to apply a uniform pressure during *pindasweda* to the unaffected side of the patient due to normal power as compared to the affected side mainly due to the loss of strength.

- Regarding paste: It was seen that while performing the *pindasweda* there was more quantity of paste getting squeezed out from the bolus in case of *Masha* as compared to *Kulattha* and this presence of paste is a considerable amount might have led to a better absorption and effect in case of *Masha*.

- Patients with Contracture: It was observed that the procedure of *pindasweda* seemed to be hampered in patients who developed contracture due to increased muscle tone.

- Seasonal variation: In the winter season it was seen that the hot bolus lost heat faster and got cooled faster as compared to summer. Also less amount or negligible amount of sweating was seen in winter as compared to summer where the patient started sweating earlier as the procedure was started.

Effect of the therapy: The reflexes like bicep, tricep, brachioradialis, knee & ankle, Power with respect to movement of Upper Limb — Shoulder, Elbow, Wrist, Meta-carpo phalanges and Inter phalanges, Power with respect to movement Lower Limb — Hip, Knee, Ankle, Meta tarsal and Phalanges, finger movement in hand and foot, lifting of arm at shoulder, lifting of leg at hip, sitting from lying down, standing from sitting, drooping of wrist and foot, loss of speech, and paper holding in finger, in all the above said parameters statistical significance was nil i.e. Statistically insignificant. **The tone of muscle** in upper and lower limb showed statistically significant improvement. However when it

is converted into percentage of improvement, all of them remained less than 45% only**.**

CONCLUSION

Conceptual study

- *Pindasweda* is an effective therapeutic procedure and is considered as *snehayuktasweda*, *sagnisweda, sarwangasweda, snigdhasweda, madhyama* to *mahanasweda* and also as a *samshamaniya*type of *bahiparimarjanachikitsa.*

Observation

- Maximum numbers of patients were seen in the age group of 50-59 & 60-69 yrs in both groups.
- Majority of the patients were found addicted to alcohol, beedi and gutakha.
- Features like *Sankocha, Ruja, Karmakshaya* and *Karmahani* were seen in maximum number of patients.
- *Samyakswinnalakshanas* like *Shoolavyaparama, Sthambhanigraha, Gauravanigraha*, *Laghutwa* and *Twakmardawata* were prominently seen.

Results: The reflexes like bicep, tricep, brachioradialis, knee & ankle, Power with respect to movement of Upper Limb - Shoulder, Elbow, Wrist, Meta-carpo phalanges and Inter phalanges, Power with respect to movement Lower Limb - Hip, Knee, Ankle, Meta tarsal and Phalanges, finger movement in hand and foot, lifting of arm at shoulder, lifting of leg at hip, sitting from lying down, standing from sitting, drooping of wrist and foot, loss of speech, and paper holding in finger, in all the above said parameters statistical significance was nil i.e. Statistically insignificant.

- The tone of muscle in upper and lower limb showed statistically significant improvement. However when it is converted into percentage of improvement, all of them remained less than 45% only.
- No specific edge of one group over the other was seen in any of the parameters i.e. the improvement was almost same in both the groups.

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