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A CLINICAL STUDY ON EFFECT OF SAMSARJANA KRAMA RELATED TO VAMANA KARMA

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ABSTRACT

The aim of this study was to evaluate the effect of Samsarjana karma related to vamana karma. After vamana & virechana the digestive power of patient is likely to be weakened, therefore regular diet is not advisable. Diet indications after vamana & virechana karma is known as samsarjana krama. In this study 30 patients were registered whose pravara shuddhi of vamana karma was done properly. Samsarjana krama was given in the form of Manda, Vilepi, Kritakrita Yusha and Kritakrita Mansarasa for 7 days. Patients were observed daily for 7 days. Effect of therapy on the basis of subjective parameters and objective parameters was studied. Subjective parameter for assessment was Abhyavaharana Shakti. Objective parameters for assessment were

Jaranashakti, Agnibala index and Bruhana (Shodhanottar weight gain). To reach the final result and conclusion, the data that had generated during the study was exposed to statistical analysis. It was observed that after Samsarajana Krama there was increase in Agni and weight (shodhanottar weight gain).

KEYWORDS: Samsarjana krama, Vamana. pravara shuddhi, Kritakrita yusha, manda, vilepi.

INTRODUCTION

Ayurveda is the ancient Indian system of natural & holistic medicine. When translated from Sanskrit, Ayurveda means "The science of Life" (The Sanskrit root Ayur means "longevity" or "life" and veda means "science"). The Ayurveda includes the panchkarma treatment. Pancha refers to the number five and karma refers to the therapy that brings about homeostasis. Panchkarma translates five therapeutic procedures.^[1] Vamana, Virechana,

Asthapana basti, Anuvasana basti & nasya are the five procedures comprising Panchkarma. According to charaka, these five procedures are considered as Panchkarma. According to sushruta, both asthapana and anuvasana basti is considered as single procedure. To complete the number five raktamokshana is added in the list of panchkarma. [3]

Each procedure in Panchkarma is divided in 3 parts i.e. 1) Purvakarma 2) Pradhankarma & 3) Paschatkarma.^[4] Each karma is equally important. If each karma done properly, good result will get. In vamana the snehapana is Purvakarma, the main procedure of vamana is pradhana karma and samsarjana krama & Dhumapana is paschatkarma.^[5] Diet indications after vamana & virechana karma is known as samsarjana krama. After vamana & virechana the digestive power of patient is likely to be weakened, therefore regular diet is not advisable.^[6]

After the Vamana there are two main aims- to increase the strength of the Agni and to provide nourishment to patient. These two aims are to be achieved simultaneously. If the patient doesn't take controlled diet, then it will lead to many complications. To avoid these complications samsarjana krama is very beneficial & necessary. [7] In samsarjana krama, diet changes step by step from "laghu aahara" to "Guru aahara" and digestive power show gradual increase. This procedure described by Aacharya Charaka very beautifully as follows.

As little (external) fire kindled gradually with grasses, cow dung etc. becomes great, stable and all digesting, the internal fire of the evacuated one does like that with liquid gruel etc. But if more grasses and put on little (external) fire, it will destroy. This is same in condition of internal fire i.e. Agni and the Agni (digestive fire) has great importance. After the vamana & Virechana Agni (digestive fire) decreases.^[8]

Health is said to be a state of physical, mental and spiritual wellbeing. Ayurveda also defines health as an equilibrium of Doshas, Dhatus and Agni, proper defectation of Mala. Any kind of disease is the vitiation of these elements. Agni plays a very important role in being healthy. The importance of Agni by Lord Atreya is described as follows.

Life–span, complexion, strength, health, enthusiasm, corpulence, lustre, immunity, energy, heat processes and vital breath all these depend on body-fire. One dies if this fire is extinguished, lives long free from disorders if it is functioning properly. Gets ill if it is deranged, hence Agni (digestive fire) is the root cause of all.^[10]

Samsarjana krama helps in the complete recovery of the digestive ability and main aim of samsarjana krama is Agni Vruddhi. So this paper deals with evaluation of effect of Samsarjana karma after vamana karma.

MATERIAL AND METHODS

- 1. Study type Open, Randomise, Prospective, Uncontrolled study.
- 2. Subject recruitment 30 Patients selected from IPD of Institute.
- 3. Name of study centre IPD of Panchkarma Department.

MATERIALS

Contents of samsarjana krama are, [11]

- 1) Manda
- 2) Vilepi
- 3) Yusha
- 4) Mansarasa
- 5) Odana (Bhakta)

METHOD OF PREPARATION

1. Manda

1-part red rice & 14-part water was cooked properly and liquid portion (without solid portion) was used in first, second and third meal times.^[12]

2. Vilepi

1-part red rice & 4-part water was cooked properly then less liquid and more solid portion was used in fourth, fifth and sixth meal times.^[13]

3. Yusha

1-part green gram & 14-part water was cooked and used it. [13] There are two types of yusha,

- 1. Akrita yusha yusha without salt & ghee called as Akrita Yusha. It was used in Seventh meal time.
- 2. Krita yusha When some salt & ghee is added called as krita yusha, it was used in eighth and ninth meal time.

4. Mansarasa

1-part meat of chicken's pieces and 8-part of water was cooked properly till ¼ th part remaining and used it.^[14] It also divides in two types,

- 1. Akrita mansarasa manasarasa without salt & ghee called as Akrita Mansarasa and it was used in tenth meal time.
- 2. Krita mansarasa When some salt and ghee is added called as krita manasarasa, it was used in eleventh and twelfth meal times.

5. Odana (Bhakta)

1 part of red rice and 5 part of water was cooked properly and used with kritakrita yusha and mansarasa.^[15]

METHOD OF ADMINISTRATION

- 1) Dose According to patients Agni^[11]
- 2) Kala- Annakala was as follows^[11]

Table No.1: Samsarjana krama in pravara shuddhi of vamana karma:

Day	Annakala	Aahara		
1 st day	Morning – Vamana	-		
	Evening – Prathama	Manda		
2 nd day	Morning – Dvitiya	Manda		
	Evening – Trutiya	Manda		
3 rd day	Morning – Chaturtha	Vilepi		
	Evening – Panchama	Vilepi		
4 th day	Morning – Shashtam	Vilepi		
	Evening – Saptama	Akrita yusha + Odana		
5 th day	Morning – Ashtama	krita yusha + Odana		
	Evening – Navama	krita yusha + Odana		
6 th day	Morning – Dashama	Akrita Mansarasa + Odana		
	Evening – Ekadashama	krita Mansarasa + Odana		
7 th day	Morning – Dwadashama	krita Mansarasa + Odana		
	Evening – Trayodashama	Normal diet		

- 3) Duration of Therapy 7 days
- 4) No. Of patient 30
- 5) Route of administration oral
- 6) Follow up Daily

CRITERIA FOR ASSESSMENT

SUBJECTIVE CRITERIAS

Abhyavaharan Shakti Parikshana^[16]

It was decided according to criteria stated by the project done by collaboration of WHO and Gujarat Ayurveda University 2011, "Developing guidelines for clinical Research Methodology in Ayurveda" as follow.

Table No.2: Abhyavaharan Shakti score^[16]

Criteria	Score	Abhyavaharan Shakti
The person not at all taking food	5	Heena
Person taking food in less quantity	4	Heena
Taking food in less quantity twice a day	3	Madhyama
Taking food in moderate quantity twice a day	2	Madhyama
Taking food in normal quantity twice a day	1	Uttama
Taking food in excessive quantity twice or thrice	0	Uttama

Table No.3: Score of Abhyavaharan Shakti^[16]

Total	WHO'S C	Classification
Total	Score	Abhyavaharan Shakti (Uttama/ madhyama/ heena)
>40	0	Littama
39-30	1	- Uttama
29-20	2	Madhuana
19-10	3	- Madhyama
09-04	4	Hoone
03	5	- Heena

(Where score of Ghana aahara, drava aahara and water intake is 100 gm/ml = 1 score, 200 gm/ml = 2 score...etc).

OBJECTIVE CRITERIAS

a) AGNI BALA INDEX^[16]

Agni Parikshana was done by using the Agni bala index with the help of Jaranakala (t) and Abhyavaharan Index (A.I.).

b) BRUHANA (Shodhanottar weight gain)

The weight of individual before and after of Samsarjana krama was taken as an objective assessment. The weight of each individual was measured on same weight machine on each time.

c) JARANSHAKTI PARIKSHANA^[16]

Assessment of Jaranashakti was done by Jeerna aahara lakshana parikshana as said by Ashtanga samgraha. Thus the presence of Jeerna aahara lakshana was assessed and examined according to the status of Agni.

Table No.4: (Jeerna Aahara Lakshana): The proper state of digestion of consumed food were estimated by following symptoms^[16]

Sr no	Symptoms		Time			Symptoms seen at time from aaharsevana				Yes/no												
		BT	D2	D3	D4	D5	D6	AT	BT	D2	D3	D4	D5	D6	AT	BT	D2	D3	D4	D5	D6	AT
1	Udgarshuddhi																					
2	Utsaha																					
3	Shariralaghvata																					
4	Kshudha																					
5	Trishna																					
6	Vegotsarga																					

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OBSERVATIONS AND RESULTS

Table No.5: Showing effect of samsarjana krama on parameters of 30 patients

Su no	Danamatana	Parameter score							
Sr no	Parameters	BT	AT	Diff.	% of effect				
1	Abhyavaharan shakti	122	63	59	48.36				
2	Jarankala(t)	263	237	26	9.88				
3	Agnibala index	263	48.47	214.53	81.57				
4	Bruhana (wt.)	1960.9	2000.1	39.2	1.99				

Table No.6: Showing effect on subjective parameters of samsarjana krama by Wilcoxon- matched- pairs test (signed rank test)

Parameters		Mean	S.D.	S.E. of Diff	Sum of all sign rank(W)	No of pairs (N)	P	Results
Ahhvavaharan	BT	4.067	0.2537	0.04632				Extramaly
Abhyavaharan shakti score	AT	2.100	0.4807	0.08776	465	30	< 0.0001	Extremely significant
shaku scole	Diff	1.967	0.5561	0.1015				significant

Table No.7: Showing effect on Objective parameters of samsarjana krama by Paired 't' test

Objective Parameter		Mean	S.D.	S.E. of diff	Т	P	Result	
	BT	8.767	2.128	0.3886				
Jarankala (t)	AT	7.900	1.269	0.2317	3.432	0.0018	Very significant	
	Diff.	0.8667	1.383	0.2525				
A anihala Inday	BT	8.767	2.128	0.3886			Evetnomoly	
Agnibala Index (ABI)	AT	1.615	0.3207	0.05854	19.399	< 0.0001	Extremely	
(ADI)	Diff.	7.151	2.019	0.3686			significant	
Bruhana	BT	65.363	11.759	2.147			Entropolo	
(Wt. gain)	AT	66.670	11.674	2.131	15.923	< 0.0001	Extremely significant	
(Wt. gaiii)	Diff.	-1.307	0.4495	0.08206			significant	

Table No. 8: Showing the effect of samsarjana krama before and after treatment on Weight:

Sr no.	Parameter	BT (1 st day) average	AT (7 th day) average
1.	Bruhana (wt. gain)	65.36 kg	66.64 kg

It shows that the weight of patients was increase from first day to last day of samsarjana krama, it means Shodhanottar Bruhana took place.

Table No.9- Showing the effect on Jarankala (t) and Agnibala index during Samsarjana krama on 30 patients:

Sr.	parameters	D1	D2	D3	D4	D5	D6	D7
no	parameters	average						
1)	Jarankala (t)	8.76	7.43	7.86	8.13	8.16	8.03	7.09
2)	Agnibala Index	8.76	3.61	3.04	2.46	2.043	1.84	1.61

Table no.10: Showing total effect of Samsarjana krama in 30 patients

Sr. no	Total effect of S.K.	No of pts	Percentage
1	Unchanged (0)	0	0%
2	Quite Significant (1-25)	5	16.66%
3	Significant (26-50)	25	83.33%
4	Very significant (51-75)	0	0%
5	Extremely significant (76-100)	0	0%
	Total	30	100

In this study group, 5 patients (16.66%) were quite significant effect and 25 patients (83.33%) were significant effect.

DISCUSSION

- According to Acharya Charaka and Sushruta; the Manda, Vilepi i.e. contents of Samsarjana krama has the quality of Deepana, that means it increases the Agni.^[17] Due to the Laghu guna of Manada and vilepi, it becomes easily digestible and helps in Deepana karma.
- The raw material used for the preparation of Manda, Vilepi etc. in Samsarjana krama was Raktashali and Mudga which has Katuvipaka, it means there was Agni and Vayu Mahabhuta pradhanya. Agni and Vayu Mahabhuta pradhana drug has a specific 'deepan karma'. According to Chakrapani Deepana dravya are Vayu Mahabhuta Pradhan and Pachana dravya are Agni mahabhuta Pradhan. Due to Vayu pradhanya it enlightenes up the Manda Agni.
- Saindhav and Goghrita used in preparations has Deepana, Pachana quality itself; [19] the Snigdha and laghu guna in both of them also helps in proper digestion.
- Vatanulomana is also the characteristic of Manda.^[17] Vatanulomana means the normal or Prakruta Gati of the types of Vata Dosha. Due to this property each type of Vata dosha does their karmas properly. It means Samana vayu also does his karma properly i.e. proper digestion of food.

- According to Dravya Samanya which is a type of Samanya- Vishesha-Siddhanta, mamsa dhatu vriddhi (wt. gain) occurs due to intake of mamsa (meat). The weight gains i.e. Shodhanottar Bruhana proved the above Siddhanta.^[20]
- The Swadurasa (sweet taste) of Vilepi also helps in Bruhana i.e. the weight gain. [21]
- According to Dhatuposhana Nyaya, properly digested previous Dhatu is responsible for the proper production of next Dhatu. So properly digested Aahararasa by the Jatharagni is responsible for the Vruddhi of Mamsa Dhatu i.e. Bruhana.
- According to modern, after the Shodhana karma the muscles of GI tract becomes weak and therefore they are not able to produce the proper secretions and enzymes hence proper digestion is impossible. In samsarjana krama firstly gives the Manda in which slightly carbohydrates are present, after that gives Vilepi in which mostly carbohydrates are present, then gives yusha which mostly contains the proteins, after that Mansarasa gives which contains the fats and lastly gives the normal diet. It means firstly gives the easily digestible food then the food which is hard to digest as compare to previous is given in increasing order.
- In Samsarjana krama the food is given in carbohydrates, proteins and fat order which supply sufficient calories for BMR, tissue maintenance, growth, reproduction, thermo regulation and muscular activity.
- Carbohydrates and fats are energy giving, therefore are required first (as patient is tired),
 but in less amount. Because during the Samsarjana krama less activities are performed by the patient.
- While proteins are necessary in more quantity as helps maintain the body. A protein containing adequate and balanced amount of all the essential amino acid (AA) are prompty unified into proteins and retain in the body. The essential AA are required because even if one is missing, it limits the extent of protein to contribute to create tissue protein. Milk, egg and flesh proteins are rich in essential AA. But they can't be given soon after vamana process because they also require huge amount of enzymes which can again damage the GIT. Hence to start with, the shuka dhanya (grains) are given and that also in the form of Manda (liquid) as liquid requires less HCl compared to solid food. Again the calorific value of Manda is very less compared to rice.
- This is followed by Vilepi which is again of Shuka dhanya (grains) but is semisolid compared to Manda and has high calorific value.

• After shuka dhanya, shimbi dhanya (pulses) is given this is because there is deficiency of lysine (essential AA) in cereal proteins (shuka dhanya) and thus is compensated by the rich amount of lysine from pulse proteins (shimbi dhanya). While the rich amount of methionine (essential AA) in cereals compensates for the lack of methionine in pulses.

Thus Samsarjana krama acts directly on Jatharagni improving the state of Agni with the mode of action mentioned above.

CONCLUSION

- First and most important conclusion is Samsarjana krama after Vamana karma enhances the Agni.
- After Samsarjana krama there is increase in weight of individuals. It means Shodhanottar Bruhana karma seen.
- Acharya clearly states that if Agni is vitiated resulting in Ajirna then medicines should not be administered. Because when Agni is not capable of digesting normal food, it cannot digest the Aushadha also. so it can be concluded that Samsarjana krama can be done in diseases where Agni Mandata is observed prior to administration of medicines for enhances the Agni and effective to next Shamana chikitsa also.
- In Samsarjana krama the contents used in the sequence of Carbohydrates, Proteins and Fats.

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