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A comparative clinical study on standardization of *Vamana Vidhi* by classical and traditional methods

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Abstract

Vamana Karma (process of emesis) is considered as *Pradhana Karma* (prime procedure) meant for inducing therapeutic vomiting, indicated for the purification of *Urdhwa Bhaga* (upper part) of the body. It is the process by which contents of stomach, including *Kapha* and *Pitta* are expelled out of the body through oral route. *Acharya Charak* and *Sushruta* have advocated various procedures for *Vamana Karma* known as classical methods, whereas some traditional methods are also being followed. As very little works has been carried out in the direction of *Vamana Karma* and as not a single work has been carried out on standardization of *Vamana Vidhi* comparing to both classical and traditional methods, the present study had been selected. The clinical trial was conducted in a randomized sample of 50 individuals (Both patients and volunteers) resolved into two sub-groups, viz. individuals in Group A was performed *Vamana* with classical methods and Group B with traditional methods. From the observations and results obtained in the present clinical study, it can be concluded that the method mentioned in classics is very much beneficial from every point of view in comparison to the traditional method. It is very easy, safest, less time-consuming and clinically as well as statistically most effective method without producing any type of complications.

Key words: *Pradhana Karma, Shodhana Karma*, standardization, *Vamana Karma, Vamana Vidhi*

Introduction

The *Panchakarma* therapy is not merely a therapeutic regime but also a management of the individual which improves the body resistance and thereby checks the pathogenesis of the disease confirming its promotive and preservative effects of normal health. Thus, *Panchakarma* therapy has a direct reference to both the health as well as the ailing. *Vamana Karma* is considered as the first, major and arduous procedure of *Panchakarma* therapy. Literally, *Vamana Karma* means to induce therapeutic vomiting or to expel out the contents of the stomach including vitiated *Doshas* through oral route, which is indicated for the purification of *Urdhwa Bhaga* (upper part) of the body.[1] The main place of *Kapha* is *Urdhwa Bhaga* and *Amashaya* (stomach). It is a general principle to expel vitiated *Doshas* from the nearest route, while the oral route is the nearest route for expelling *Kapha Dosha* in the form of *Vamana Karma*. So the removal of vitiated *Kapha Dosha* from *Amashaya* is the best way to cure a disease. According to *Charaka*, it is meant for purification of upper part of the body. But according to *Sharangadhara* and *Bhavaprakash* the word *Vamana* is used to denote the removal of "*Apakwa Kapha* and *Pitta*" forcibly outside.

It is important to understand that the *Vamana Karma* is indicated for elimination of *Kapha Dosha* not only in diseased states but also in healthy individuals in different physiological states where *Kapha Dosha* is aggravated e.g., in *Vasanta Ritu* (Spring) for preservation of health and prevention of disease. *Vamana Karma* is foremost procedure in management of *Kaphaja* disorders, where Kapha is predominant.[2]

Acharya Charaka and *Sushruta* have advocated various procedures for *Vamana Karma* known as classical methods, whereas some traditional methods are also being followed. But in the present era of globalization, every single aspect is accepted after fine analysis. Considering the need of standardization of *Vamana Karma* and to produce firm data to support efficacy of *Vamana Vidhi* (procedure) comparing both the classical and traditional methods, the present study had been planned to standardize the *Vamana* procedures critically with the help of certain biophysical and biochemical parameters.

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Aims and Objectives

1. To standardize the procedure of *Vamana* regarding the three stages viz. *Purva Karma* (pre-operative), *Pradhana Karma* (prime), and *Pashchata Karma* (post-operative).
2. To standardize both procedure by using the four criteria viz. *Antiki* (end point), *Vaigiki* (no. of *Vega*), *Maniki* (quantitative), and *Laingiki* (qualitative) criteria.
3. To analyze the vomitus on the basis of some physical and biochemical parameters.
4. To evaluate the changes taking place in different pathological and serological factors before starting *Snehapana* (ghee intake) and after completion of the whole procedure of *Vamana* (i.e., *Samsarjana Krama*) (dietic regimen).
5. To study the efficacy of both procedures of *Vamana* in various clinical conditions and in both patients as well as healthy volunteers.

Materials and Methods

As per the inclusion criteria for *Vamana Karma*, Total 50 patients and healthy volunteers were selected irrespective of gender, religion, occupation, etc., from O.P.D. and I.P.D. of Panchakarma Department of Institute for Post Graduate Teaching and Research in Ayurveda, Jamnagar. The patients as well as healthy volunteers were randomly divided into following two groups:

1. Group A (classical group): Twenty-two individuals of this group had performed *Vamana* by the classical methods according to *Charaka* and *Sushruta Samhita*.[3,4]
   A. Out of these individuals, five were healthy volunteers, i.e., "*Swastha*" having *Kapha Prakopa Lakshanas* and taking *Vamana* for the purpose of "*Swasthya Rakshana.*"
   B. Seventeen patients having various disorders but a common criterion for the selection, i.e., "*Vamanarha*" *or* "*Vamya*" (fit for vomiting) were selected for *Vamana* in "Diseased Group."

Vidhi: Madanphala Pippali[5] was taken in Antarnakha Musti (making fist) Pramana by the patient's own hand. It was then added in Yashtimadhu Kwath and kept for one night (previous night of Vamana Karma). In the morning time, it was stirred properly and filtered. Then it was given to the patient in lukewarm state mixing with honey and Saindhav Lavana (rock salt) upto Pittanta Vamana (till bile comes). Before that in early morning, Ghritayukta Yavagu was given to the patient after Abhyanga (massage) and Swedana (fomentation).

2. Group B (traditional group): Twenty two individuals of this group had performed *Vamana* by traditional methods followed in the Panchakarma Hospital of I.P.G.T. and R.A.
   A. Out of these individuals, 10 were healthy volunteers, i.e., "*Swastha*" having *Kapha Prakopa Lakshanas* and taking the *Vamana* for the purpose of "*Swasthya Rakshana.*"
   B. Twelve patients having various disorders but a common criterion for the selection, i.e., "*Vamanarha*" *or* "*Vamya*" were selected for *Vamana* in "Diseased Group."

Vidhi: In the morning time at first after Abhyanga and *Swedan*, milk or *Ikshu Rasa* was given to the patient upto *Aakanthapana* (fullness upto throat). Then *Madanphala Pippali Churna*, *Vacha* and *Saindhav Lavan* were taken in a ratio of 4:2:1 part, respectively and a paste was made with honey. It was then given to the patient directly or indirectly by mixing with any liquid media like milk or *Ikshu Rasa* or *Yashtimadhu Phanta*. Afterwards, *Yashtimadhu Phanta* made freshly in the morning was given upto *Pittanta Vamana*.

Inclusion criteria

1. Patients as well as volunteers who are fit for inducing *Vamana Karma* as per classics.
2. Age between 16 and 60 years.
3. Uncomplicated Cases.

Exclusion criteria

1. Patients who are contraindicated for inducing *Vamana Karma* as per classics.
2. Age below 16 years and above 60 years.
3. Having fatal complications of serious illness.

Drugs and Dosages

For classical group

Purva Karma: (1) *Snehapana* by *Shuddha Ghrita* (According to *Koshtha*, *Agni Bala*, etc., of patient). (2) *Sarvanga Abhyanga* by *Bala Taila* (3) *Sarvanga Swedana by Bashpa Sweda* (4) *Ghrita-Yukta Yavagupana* = 200-400 g approximately according to *Koshtha*, etc.

Pradhana Karma: (1) *Yashtimadhu Kwath* = 3-5 l approximately (2) *Madanphala Pippali* = *Antarnakha Musti Pramana* according to patient's own hand. (3) Honey = Quantity Sufficient (50-100 ml approximately) (4) *Saindhav Lavana* = Q.S. (20-30 g approximately).

Pashchata Karma: *Samsarjana Krama* was according to the *Shuddhi* after *Vamana Karma*.[3,4]

For traditional group

Purva Karma: (1) *Snehapana* by *Shuddha Ghrita* (according to *Koshtha*, *Agni Bala*, etc., of patient). (2) *Sarvanga Abhyanga by Bala Taila* (3) *Sarvanga Swedana by Bashpa Sweda* (steam bath).

Pradhana Karma: (1) Milk or *Ikshu Rasa* = 1.5-2 l approximately (2) Paste of *Madanaphala Pippali Churna* = 8 g, *Vacha* = 4 g, *Saindhava Lavana* = 2 g and Honey = Q.S. (20-30 ml approx.) (3) *Yashtimadhu Phanta* = 3-4 l approximately.

Pashchata Karma: *Samsarjana Krama* was according to the *Shuddhi* after *Vamana Karma*.[6]

Follow-up study

Follow-up study was carried out for 2 weeks after completion of *Vamana* for assessment of symptomatic changes.

Laboratory investigation

1. Routine and Microscopic examination of blood and urine was carried out to assess the present health status of the patients as well as volunteers to exclude pathology and for overall assessment of therapy, before and after the whole procedure.

2. Blood biochemistry for various serological factors were carried out to assess the effect of *Vamana* over the same. The serological values were obtained for total lipid profile (for serum cholesterol, HDL (High Density Liporpotein) and serum Triglycerides), Total Proteins, SGPT (Serum Glutamic Pyruvic Transminase), FBS (Fasting Blood Sugar), blood urea and plasma cortisol level[7] before starting *Snehapana* (*Purvakarma*) and after completion of *Paschata Karma* to assess the efficacy of the procedure.
3. Physical and biochemical analysis of vomited material to evaluate the pH and specific gravity of vomitus and mucopolysaccharide content (i.e., Hexosamine[8]) of viscous matter present in vomitus.

Criteria for Assessment

1. Clinical improvements in the signs and symptoms of disease taken for study to know the efficacy of both methods of *Vamana* (Either classical or traditional methods) by scoring pattern, which is shown in Table 1.
2. *Aantiki*, *Vaigiki*, *Maniki* and *Langiki* criteria[9] were adopted to assess and compare the efficacy of either procedures or methods.
3. BI (Bout Index) or QFT (Quantity, Force and Time) Pattern was selected as standardized scoring pattern to decide the nature of bout as *Vega* or *Upavega* and to decide *Vaigiki Shuddhi* accordingly.
4. MSI (*Maniki Shuddhi* Index) was adopted as a standard scoring pattern to assess the *Maniki Shuddhi* clinically.
5. Improvements in the laboratory investigation were assessed to exclude pathology and for overall assessment of therapy before starting *Snehapana* (*Purvakarma*) and after completion of *Pashchata Karma* (i.e., *Samsarjana Krama*).

Observations and Results

Out of 50 individuals (both patients and healthy volunteers) registered for the *Vamana Karma*, 44 had completed the whole procedure while 6 persons left the treatment at different stages. In both groups, 25 peoples were registered, among which 22 had completed *Vamana* by the classical and traditional methods respectively. Maximum no. of individuals (44%) were in the age group of 21-30 years and from males category (74%) with Hindu religion (94%), while maximum, i.e., 58% were having *Samagni*, 60% had *Madhyama Koshtha*, 32% individuals were of *Kapha-Pittaja Prakriti*, 52% were having *Madhyama Sara*, 50% had shown *Madhyama Samhanana* and 56% were having *Madhyama Pramana*. Likewise, 54% individuals were having *Madhyama Satmya*, 48% were of *Pravara Sattwa*, 76% were having *Madhyama Abhyavaharana Shakti*, 64% had *Madhyama Jarana Shakti*, and 56% had moderate *Vyayama Shakti*. Maximum, i.e., 32% individuals were healthy volunteers, while 16% each were having *Sthaulya* (obesity) and *Yauvan Pidika* (pimples) followed by 12% were of the disease *Pratishyaya* (rhinitis).

Regarding *Snehapana*, Maximum 31.82% members used 7 days to manifest the symptoms of proper Oleation (*Samyaka Snigdha Lakshana*), while during all the 7 days, an individual ingested or digested at total an average 810.68 ml of Ghee in group A, while an average quantity of 678.86 ml Ghee in group B. An average time period of 6.55 h was used daily for digesting the increased *Sneha* by the individual of group A, while they had used an avg. duration of 6.45 h daily for the same in group-B. In group A, *Snigdha Lakshanas* were seen in maximum percentage like *Agni Deepti* on 1st day, *Snehodvega*, *Varchah Snigdha* and *Anga Laghava* on 4th, *Anga Mardava* on 5th, *Anga Snigdhata* on 5th and 6th, *Vatanulomana* on 3rd, *Twak Snigdhata*, *Adhastad Sneha Darshanam*, *Glani and Shaithilya* on 6th and *Klama* on 5th and 7th day. Likely in group B, *Agni Deepti* on 1st and 2nd, *Snehodvega*, *Varchah Snigdha* on 3rd, *Anga Laghava*, *Anga Mardava Anga Snigdhata*, *Twak Snigdhata and Adhastad Sneha Darshanam* on 6th, *Vatanulomana* on 2nd and 3rd, *Glani* on 5th, *Klama and Shaithilya* on 5th and 6th day.

An average amount of 13.51g was observed as the *Pramana* of *Antarnakhamusti* (*Madanphal Pippali*). The individuals in group A had used average 279.54 g of *Ghritayukta Yavagu*, while in group B an average 1440.91 ml was the amount served for *Akanthapana* in 6.23 min. It was observed that average 802.27 ml medicine was ingested by the individual of group A, when the first bout (*Vega* or *Upavega*) was noted, after an average time of 6.77 min. from starting of administration of *Vamana Kashaya*, while an average 1506.36 ml medicine was taken by the individual of group B, when the first bout (*Vega* or *Upavega*) was observed, after an average time of 14.91 min. from starting of *Akanthapana*.

The average time taken to expel the 1st *Vega* (i.e., vomitus) after the administration of *Vamana Kasaya/Yoga* in group A was 14.04 min., while in group B it was 11.41 min.

The average no. of *Vega* were 7.41 in group A and 6.91 in group B, while 12.41 no. of *Upavega* in group A and 8.77 no. of *Upavega* in group B were expelled. The average measurement (quantity) of *Vega* expelled in group A was 483.35 ml while in group B; it was measured as average 517.52 ml.

In an average of 58.36 min, the process of *Vamana* was completed in group A, while average 64.91 min was taken to finish the whole procedure in group B. Average BP before commencing *Vamana* pressure in group A was 130.18/84.82 mm of Hg and came down to 122.54/85 mm of Hg at the end of process. But in group B, not so much changes was observed showing the average value 121.82/81.09 mm of Hg before *Vamana* and 121.54/82.36 mm of Hg after *Vamana*. The mean value of pulse rate at the beginning in group A was 85.13/min which increased up to 94.95/min at the end, while in group B it was 82.36/min initially and increased to 96.18/min at last. The average weight of individuals was 67.91 Kg before starting

Table 1: Criteria for assessment

Result	Complete relief/cure (%)	Markedly improved (%)	Moderately improved (%)	Improved/mild improved (%)	No improved/ unchanged (%)
Score	4 (76-100)	3 (51-75)	2 (26-50)	1 (1-25)	0 (0)

the *Vamana* and reduced to 65.33 Kg after completion of the procedure in group A, while peoples had the initial average weight 61.19 Kg and turned to 58.19 Kg after the procedure in group B.

Regarding *Vaigiki Shuddhi*, maximum individuals noted *Pravara Shuddhi* (68.18%), followed by *Madhyama Shuddhi* (18.18%), *Avara Shuddhi* (13.64%) in group A, Whereas in group B 59.1% individuals showed *Pravara Suddhi*, 27.3% *Madhyama Suddhi*, 9.1% *Avara Suddhi* and 4.5% reported *Ayoga* in this group (i.e., by traditional method). It was observed that an average value of drug input in group A was 6080.91 ml while 5781.82 ml was the drug output (i.e., average amount of 299.09 ml was remained inside). The average *Maniki Shuddhi* Index (M.S.I.) observed was 4.91. Likewise the average drug input of group B is 5643.64 ml while total 5481.82 ml is expelled. So averagely 161.82 ml was remained inside the abdomen. The M.S.I. calculated here was 2.86. In individuals of group A, average values of Hexosamine obtained from vomitus was 669.64 μg/ml, while in persons of group B it was come averagely 480.68 μg/ml, while the average specific gravity of the vomitus was 1018.18 in group A and 1014.54 in group B. The average pH was observed in group A as 5.57 in phase one and 6.23 in the second or middle phase (acidic). But in the last phase, when *Pitta* started to be appeared in the vomitus, it showed the alkaline nature with the average value of 8.06. Like in group B, the pH of phase one was marked as 5.67 and phase two as 6.4 showing acidic in nature, while the pH of third phase was observed as 8.22 showing as alkaline. The average specific gravity of the total vomitus was 1018.18 in group A and 1014.54 in group B.

As *Antiki Lakshanas*, due to appearance of *Pitta*, maximum, i.e., 54.54% individuals in group A and 50% in group B tasted bitterness (*Tiktasyata*), 81.82% of group A and 100% of group B felt lightness in the abdomen (*Udara Laghava*), 50% of group A felt both pain and burning sensation of throat (77.27% of group B), while appearance of *Acchapitta* was observed in vomitus by 27.27% of group B and 13.64% of group A and 40.91% individuals of group A and 18.18% of group B realized lightness in the whole body (*Gatra Laghava*) with an increase in freshness (*Indriya Prasannata*). Maximum, i.e., 68.18% peoples of group A and 59.1% of group B followed *Samsarjana Krama* for 7 days, 18.18% of group A and 27.27% of group B followed it for 5 days and 13.64% each of group A and B for 3 days. Regarding pathological values, Neutrophil count was reduced upto 7.91%, which is statistically significant ($P < 0.05$) in group A and upto 9.66% in group B, which is highly significant ($P < 0.01$). Total Leucocyte Count (TLC) was decreased by 8.4% in group A, which is also highly significant and by 6.87% in group B, which is insignificant. Erythrocyte Sedimentation Rate (ESR) level was highly decreased upto 39.57% in group A, which is insignificant at the level of $P > 0.05$. Regarding biochemical values, no significant difference was seen in total protein, blood urea and SGPT level. But serum cholesterol is reduced by 4.99% in group A, which is insignificant at the level of $P > 0.05$. Reduction by 21.66% in serum triglycerides and by 15.28% in levels of HDL was observed in group A, which are statistically significant at the level of $P < 0.05$. Whereas 14.39% and 0.73% reduction was found in the levels of S. Triglycerides and HDL respectively in group B, are insignificant statistically at the level of $P > 0.05$. FBS level was reduced by 4.31% in group A and only 0.98% in group B. Both are statistically insignificant at the level of $P > 0.05$ in group A. The plasma cortisol level was raised by 39.53% in group A just after *Vamana* process. As it was only one sample, the value is statistically not significant. In group A, Maximum, i.e., 50% individuals had marked improvements (Score = 3) followed by 36.36% who got rescued with moderate relief (Score = 2), while only 4.54% individuals were found with mild improvement (Score = 1) and 9.10% individuals had complete relief (Score = 4). Likewise in group B, maximum, i.e., 63.63% individuals alleviated moderately (Score = 2) followed by 27.27% personnel who got rescued with markedly relief (Score = 3), while 9.10% individuals found mild improvement (Score = 1) and no one got complete relief in this group, which is shown in Table 2.

As a comparative effect, *Vamana* by the classical method is clinically more effective by 17.11% than traditional methods in getting relief from signs and symptoms. It is statistically significant at the level of $P < 0.05$ (by Unpaired '*t*' test) which is shown in Table 3. As a comparative effect, 6.74% more *Vegas* had come by classical method in comparison to traditional methods. But it was statistically insignificant at the level of $P > 0.10$. As a comparative effect, *Shuddhi* was more by 5.51% in *Vamana* by the classical method as compared to *Vamana* by traditional method, which was insignificant at the level of $P > 0.10$. As a comparative effect, the value of Hexosamine was more by 28.22% in vomitus expelled by the classical method in comparison to the value evaluated from the vomitus emitted by traditional method. This shows, the *Shuddhi* in view of *Maniki* criteria was more by the classical method, at a statistically significant level of $P \leq 0.05$ (by Unpaired '*t*' test).

Discussion

From the above study it was observed that average no. of *Vega* and *Upavega* (i.e., 7.41 and 12.41) were found in by the classical method as compared to traditional methods (i.e., 6.91 and 8.77). Because *Vega* had come out easily from deeper part of the stomach with viscous matter in group A than the group B as the particles of *Madanphal Pippali* were present in *Yashtimadhu Kashaya* (decoction) till end, for which individual had felt more exertions earlier but got more relief later on. The average quantity of every *Vega* in traditional method was measured more as compared to classical method, as more *Kshudra* or *Madhyama* and *Khandit Vega* had come in this method may be due to less intake of *Vamana Kashaya* (probably due to more thickened solution). Maximum

Table 2: Overall effect of *Vamana Karma* by both methods

Criteria of relief	Group A (total=22)		Group B (total=22)	
Score/grade	No. of individuals	%	No. of individuals	%
0	0	00	0	00
1	1	04.54	2	09.10
2	8	36.36	14	63.63
3	11	50	6	27.27
4	2	09.10	0	00

Table 3: Comparative effect of *Vamana Karma* by classical and traditional methods on clinical improvements

Groups	Methods	Mean score of clinical improvements	% Changes	S.D.	S.E.	Unpaired '*t*'	'*P*'
A (*n*=22)	Classical	ẍ=2.63	17.11	0.72	0.15	2.36	<0.05
B (*n*=22)	Traditional	ẍ=2.18		0.58	0.12		

percentage (i.e., 68.2%) of *Pravara Shuddhi* was observed in group A as compared to group B (i.e., 59.1), whereas more percentage of *Madhyama* and *Avara Shuddhi* were seen in group B most probably due to earlier expulsion of *Vamana Yoga* with vomitus. As MSI of group B (i.e., 2.86) was lesser than group A (i.e., 4.91) more drug output (more *Dosha Shuddhi*) were there in group B as compared to group A. Furthermore, more mucous (i.e., *Kapha* like viscous matter) were expelled in group A than group B, whereas *Pitta Darshan* was seen easily with a lesser time in group B as compared to group A. The average time taken to complete the *Vamana* (vomiting) by the classical method (58.36 min) was lesser than the time taken for traditional method (64.91 min), may be due to quick expulsion of vitiated matter, as *Madanaphala Pippali* was properly diluted in the *Vamana Kasaya* or may be due to quick appearance of *Antiki Lakshanas*, which leads the procedure to an end point. Clinically more percentage of individuals had marked improvement in group A, whereas more percentage of individuals got moderate improvement in group B, most probably because of more *Shuddhi* obtained by the classical method than the traditional. As we know that *Vamana Karma* is a stressful work, which is done in early morning (i.e., *Kaphaja Kala*). Likewise, according to modern science the plasma cortisol level also rises in early hours of morning and in any stressful stimuli. So Plasma Cortisol level was tested just before and after *Vamana Karma*, where a rise in Cortisol level was observed in classical methods. By physical analysis of vomited material, acidic pH was found in earlier stage and alkaline pH was seen in last stage (i.e., when *Accha Pitta* comes). More value of Specific gravity was found in vomitus of classical method as compared to the vomitus of traditional method. By biochemical quantitative analysis of vomitus (i.e., Hexosamine Test); mucopolysaccharide content of vomitus was found more in group A (669.64 μg/ml) in comparison to group B (480.68 μg/ml), as more viscous matter was expelled during *Vamana*.

Conclusion

From the present clinical study, it can be concluded that the method mentioned in the classics are very much beneficial from every point of view in comparison to the method which has been used traditionally as it is very easy, safe, less time-consuming, and clinically as well as statistically the most effective method. *Madanphala Pippali*, which was taken in *Antarnakha Musti Pramana* (By patient's own hand) in case of the classical method measured about average 13.51 g, which should be mixed in 4 l of *Yastimadhu* decoction for proper dilution. So this proportion can be taken as a standard ratio for *Vamana Karma*. In concern to *Vaigiki Shuddhi*, it indicates that more no. of *Vega* and *Upavega* come by the classical method as compared to the traditional methods. Measurements of drug inputs and drug outputs (i.e., vomitus) are necessary as *Maniki Shuddhi* may guide towards proper judgment regarding purification and provide some clues regarding the results obtained. By physical analysis of vomited material, "pH" of the vomitus can be used as an indicator to guide oneself towards "end point" (as *Antiki Shuddhi*). As acidic pH was found in earlier stage and alkaline pH was seen in last stage (i.e., when *Accha Pitta* comes), it may help to cease the *Vamana* at particular point. According to *Laingiki Shuddhi*, more *Pravara Shuddhi* is achieved in *Vamana* by the classical methods in comparison to traditional methods. However, all the *Shuddhi* have equal role in assessing the proportion of purification and predicting any type of result from it. Regarding the duration of *Vamana*, it can be said that the time taken to complete the *Vamana* by the classical method is lesser than the time taken for traditional method. Significant more reduction in FBS and lipid profile test (S. Cholesterol, HDL and S. Triglyceride level) by the classical method (despite of the consumption of a huge amount of Ghee during *Snehapana*) indicates that classical *Vamana* improves the internal homeostasis more easily in comparison to traditional method. By comparing the improvements in the symptoms obtained after *Vamana* with the purification done earlier, it can be said that more expulsion of vitiated matter might be there in the classical method in comparison to traditional method, as significant values were obtained during unpaired '*t*' test of various factors. More value of mucopolysaccharide content (hexosamine) in the classical method as compared to traditional method indicates that biochemical analysis of the vomitus can open a new door toward the better understanding of humors and assessment of the process provided vomitus should be analyzed in more sophisticated ways as well as in more individuals.

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हिन्दी सारांश

शास्त्रीय एवं पारंपरिक विधि से वमन विधि का मानकीकरण – एक चिकित्सात्मक अध्ययन

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पारंपरिक विधि से जिन रूग्णों और स्वस्थ व्यक्तियों को वमन कराया गया उनमें प्रारम्भिक परिणाम अच्छे मिले हैं, परंतु रूग्णों को समय और कष्ट अधिक लगा था । लेकिन शास्त्रीय वमन विधि से जिन रूग्णों और स्वस्थ व्यक्तियों को वमन कराया गया उनको समय और कष्ट कम लगा एवं लाभ अधिक मिला । मदनफल पिप्पली का अन्तर्नख मुष्टि प्रमाण है १३.५१ ग्राम (मानकीकरण मात्रा) जो कि शास्त्रीय वमन विधि में उपयोग हुआ है ।