

Clinical Research

Clinical trial on different dose patterns of *Shodhanartha Abhyantara Snehana*

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Abstract

Internal oleation (*Snehana*) is a major preparatory procedures performed before Bio-Purification (*Shodhana*). Oleation leads and decides the total outcome of the Bio-purification therapy; hence, standard guidelines are needed for performing the internal oleation in an effective manner and also for avoiding the inadequate and excess oleation. It is obligatory to start and increase the dose of lipids (*Sneha*) in appropriate and judicious way considering the bio-fire (*Agni*) and nature of bowel habit (*Koshtha*) of the subject. The outcome of Bio-Purification depends upon proper mobilization of *Dosha* from the periphery (*Shakha*) to gastrointestinal tract (*Koshtha*); which is achieved with the help of oleation therapy (*Snehana Karma*) and sudation therapy (*Svedana Karma*). This clinical study was carried out on 29 subjects to standardize the dose and duration of internal oleation and to develop the oleation grade for the assessment of internal oleation therapy. The selected subjects were randomly divided into two groups, in which group A was given fixed increase dose of ghee and in group B non-fixed increase dose was given. Results of this study show that the total percentage of oleation was 33.57% in group A and it was 45.28% in group B. Subjects of Group B (non-fixed dose schedule) have shown better oleation in all the aspects, i.e. duration, oleation grade, and purification grade.

Key words: Bio-purification, oleation, purgation, purification, *Snehana*, *Shodhana*

Introduction

Internal oleation is the major preparatory procedures performed before Bio-purificatory therapies (*Shodhana Karma*) such as therapeutic emesis (*Vamana Karma*) and therapeutic purgation (*Virechana Karma*). The outcome of Bio-Purification depends upon proper mobilization of *Dosha* from the periphery (*Shakha*) to gastrointestinal tract (*Koshtha*), which is achieved with the help of oleation therapy (*Snehana Karma*) and sudation therapy (*Svedana Karma*). Of these two, the oleation is a major therapy which decides the outcome of purificatory procedure.^[1]

Emesis and purgation are the Bio-purificatory procedures against the normal physiological processes of the body. Anything against physiological activity of the body is bound to aggravate

the *Vata Dosha*. *Sneha* helps in protecting the body from the negative onslaught of *Vata Dosha*.

In Ayurvedic classics, brief procedures of internal oleation has been told in the form of verse; however, there is no detail and precise explanation about the test dose, pattern of increase in dose, assessment of symptoms of adequate oleation (*Samyak Snigdha Lakshana*),^[2] etc. So, there is urgent need of standardization of internal oleation, especially the dose pattern.

Currently, the practicing physicians are facing difficulty in deciding the proper dose and duration of oleation. Therefore, two main discussion points in internal oleation are the fixation of dose and duration. It seems that Scholars have considered bio-fire (*Agni*) as a technique to fix the dose of *Sneha* and bowel habit (*Koshtha*) to fix the duration of oleation.^[3]

There is no mention of dose schedule of *Sneha* in classics. Indirect references regarding the fixation of dose of *Sneha* are available. Charaka explained this with an illustration that, just as cloth absorbs the water up to its capacity then drains off. Similarly, the bio-fire according to its strength digests the *Sneha* and drains off when excess. Here, Chakrapani also supported the Charaka's view of where to stop *Snehana*.^[4] Up to the 12th cent A.D., the physicians are able to assess the bio-fire and

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bowel habit and decide how much dose and duration for *Sneha* is required. Afterwards, in the society, the physician wanted a quick ready reckoner of internal oleation schedule, which was fulfilled by Vangasena for first time in 12th cent. A.D. Vangasena was the first Scholar to describe clearly the three abstract incremental dose schedules as least, medium, and best.^[5]

Ghee (medicated or non-medicated) is given in specific increasing dose pattern for three to seven days, determined by the nature of bowels passed and the digestive power of an individual. Estimated quantity of lipid required for oleation ranges from 600 to 1200 ml.

The careful daily assessment of oleation is very important for deciding further steps like sudation, emesis, or purgation. Any error in the assessment may lead to complications. The assessment of the outcome of oleation therapy is done on the basis of the symptoms of adequate oleation described in the classics.

It is hypothesized that oleation occurs better in the group, where *Sneha* has been given according to the bio-fire. In addition, it is presumed that if oleation occurs better, then purification will be better.

Aims and Objects

1. To formulate oleation grade assessment criteria for the assessment of oleation
2. To evaluate the effect of oleation on the outcome of Bio-purification
3. To evaluate the safety of Internal oleation.

Materials and Methods

Subjects attending the OPD of *Kayachikitsa*, Institute of Post Graduate Teaching and Research (IPGT and RA), Jamnagar, were recruited for the study. Then, detailed examination of the subject was done on the basis of a specially prepared CRF incorporating all the details about internal oleation and purgation along with the necessary details of disease conditions. The assessment criteria for bio-fire, bowel habit, and symptoms of adequate oleation formulated earlier by Varsha B, *et al.*^[6] were modified and used in the present study.^[7] For assessment of oleation grade, a new formula was developed.

Brief procedure of oleation and purgation

Preparatory procedures of oleation

Prior to the oleation therapy in all the groups, the assessment of *Agni* and *Koshtha* was done in all subjects. In subjects having indigested matter (*Ama*), digestive therapy (*Pachana*) with *Trikatu* powder 3 g thrice in a day for two days was given.

Main procedure of internal oleation

In the morning (after proper digestion of previous night meal and in empty stomach), the subjects were administered the ghee. Hot water was given as after drink.

After administering ghee, instructions were given to the subjects - not to take food until he/she feels hunger and only hot water was allowed to drink. During this period, subjects were given light diet from I.P.D. The symptoms of adequate oleation were observed daily.

Rest days

This is the 3 days interval after completion of oleation. The oil massage and sudation therapy were performed in the morning during this period and the subjects were given liquid, hot, and light diet.

Purgation

On the day of purgation, first oil massage and sudation were done and then purgative formulation was administered at around 10 am.

Post-purificatory dietetic regimen

Payadi diet regimen was advised after purgation, depending upon the type of Bio-purification.^[8]

Design of study

This is a randomized, parallel, and open labeled interventional clinical trial.

Selection of subjects

The recruited subjects fulfilling the inclusion criteria were selected for the study irrespective of sex, religion, occupation, etc.

Inclusion criteria

Patients having Eczema, Leucoderma, Acne, Psoriasis, and healthy volunteers belonging to age group of 16 to 60 years were selected for the study.

Exclusion criteria

Subjects having major illness and severe impairment of bio-fire were excluded from the study.

Grouping

The selected patients and healthy volunteers were randomly divided and studied under two groups.

Group A (fixed dose group)

Subjects in the group received test dose of pure ghee on the first day and then dose was increased equal to the test dose daily, till the appearance of symptoms of adequate oleation or maximum seven days, whichever was earlier.

Group B (non-fixed dose group)

In this group, the subjects were given test dose on the first day and then dose was increased on the basis of analysis of bio-fire by using parameter of the bio-fire index. Pure ghee was given till the appearance of symptoms of adequate oleation or maximum seven days, whichever was earlier. So, the dose of *Sneha* was not fixed and the dose schedule in this group varied in each individual subject.

Interventions

Same for both groups (except the dose).

Drug

Amul brand Buffalo ghee for oleation.

Purgative formulation

Ichhabhedhi Rasa^[9] 250 mg and 80 ml of decoction of *Triphala* and endocarp of fruit of *Cassia Fistula* (*Aragwadha*).

Posology

The drugs were administered according to bio-fire strength (*Agnibala*), bowel habit (*Koshtha*), constitution,

exercise capacity, physique, habit, etc., till the appearance of symptoms of adequate oleation or maximum seven days, early in the morning, at sunrise time, after digestion of previous meal, when the subject is not feeling hungry with hot water.

Test dose

For both groups, test dose was fixed on the basis of the following Criteria

Factor	Score
Strength of bio-fire	20
Exercise capacity	10
Habit	10
Soft/medium/hard bowel habit	30/20/10

Interpretation

If the score was more than 50, then 50 ml of test dose was given. If the score was more than 40, then 40 ml of test dose was given, and If the score was more than 30, then 30 ml of test dose was given.

Follow-up

Subjects were observed daily during oleation and after purgation.

Statistical test

The data obtained were subjected to statistical analysis for level of significance by paired 't' test and unpaired 't' test using Sigmatat software.

Assessment criteria

To give objectivity, score was assigned to all symptoms of adequate oleation.

Scoring pattern

Symptoms	1_Ap
a) Normalcy of Vata (<i>Vatanulomana</i>)	
Upward movement of Vata with excessive belching and flatulence	5
Upward movement of Vata with occasional belching and flatulence	4
Mild flatulence and heaviness of abdomen	3
<i>Vatanulomana</i> but absence of lightness of abdomen	2
<i>Vatanulomana</i> and lightness of abdomen	1
b) Consistency of stool (<i>Pureesha Samhati</i>)	
Too dry and solidified	5
Solidified	4
Normal (semisolid)	3
Loose	2
Watery	1
c) Oiliness of stool (<i>Pureesha Snigdha</i>)	
Dry stool	5
Stool with less quantity of fat	4
Stool with moderate quantity of fat	3
Stool with large quantity of fat	2

Only fat excretion	1
d) Oiliness of skin (<i>Tvak Snigdha</i>)	
Excessively dry and rough skin	5
Roughness of skin	4
Dryness of skin	3
Normal skin	2
Oily skin	1
Excessively oil skin	0
e) Lightness of body (<i>Gatra Laghava</i>)	
Absent in all 24 hrs.	5
Present after 18-24 hrs.	4
Present after 12-17 hrs.	3
Present after 6-11 hrs.	2
Present after 3-5 hrs.	1
f) Lightness of abdomen (<i>Udara Laghava</i>)	
Absent in all 24 hrs.	5
Present after 18-24 hrs.	4
Present after 12-17 hrs.	3
Present after 6-11 hrs.	2
Present after 3-5 hrs.	1
g) Normal unobstructed evacuation of stool (<i>Mala-anulomana</i>)	
No defecation	4
Not satisfactory, with straining	3
Satisfactory, with straining	2
Satisfactory, without straining	1
h) Softness of body parts (<i>Anga Mardava</i>)	
Slight	
Moderate	
Excess	
i) Weakness (<i>Sada</i>)	
Mild weakness occasionally and does not affects activities of daily living	3
Moderate weakness either occasionally or continuously present; affects ADL	2
Severe weakness present continuously; affects ADL	1
Absent	0
j) Fatigue without doing any work (<i>Klama</i>)	
Mild fatigue occasionally and does not affects activities of daily living	3
Moderate fatigue either occasionally or continuously present; affects ADL	2
Severe fatigue present continuously; affects ADL	1
Absent	0
k) Aversion to oily substance intake (<i>Snehodvega</i>)	
Aversion, yet the person can able to take ghee without force	3
Aversion by tasting, person can able to take Ghee on forcing	2
Aversion by tasting, seeing and smelling; person cannot able to take at all	1

Intensity of bio-fire

Bio-fire Strength Index (BSI) = Total Dose / Given Dose × T.

T = Time taken for the digestion of Ghee.

Lesser the BSI, more will be the intensity of bio-fire.

Assessment criteria of grade of oleation

For assessing the oleation Grade on the basis of symptoms of adequate oleation, an equation was developed as follows:

Total score of symptoms of adequate oleation is 47. After vigilantly analyzing the score, different grades of oleation had been framed by giving range of score.

Score	Grade of oleation
9-16	Superior and adequate
17-24	Moderate and adequate
25-32	Mild and adequate
>32	Inadequate
<9	Excess

Results**General observations**

Total 29 subjects were registered for the present study, which were randomly divided by simple random sampling into two groups. Among these, 14 subjects were registered in group A and 15 subjects were registered in group B. In group A, one subject left against medical advice.

82.76% of the study populations were unhealthy, in which maximum 41.38% subjects were having eczema, followed by 34.48% psoriasis, and least of 3.45% subjects were having acne and leucoderma. In this study, 17.24% individuals were healthy volunteers.

Discussion

So, though internal oleation is in practice since ancient times as a preparatory procedure of Bio-purification, the details of the process were changed in some or other way in the flow of time period and traditions. From the available Ayurvedic textbooks, some daily abstract dose schedules are mentioned which were based on the individual experiences or traditions. Some other authors even tried to double the 6th day dose on 7th day.^[10]

Symptoms of adequate oleation

Normalcy of *Vata* is very first symptom quoted in the list of symptoms. Practically also, this symptom appears first. The value of Bio-fire strength index (BSI) was accepted as a score for intensity of hunger directly. Though the subjects did not report the actual increase in hunger on their regular meal timings but considering the quantity of ghee given, the BSI was decided [Table 1].

Pattern of appearance of symptoms of oleation

The data suggest that all symptoms of adequate oleation do not appear on the same day but as oleation process goes on in the body, the symptoms appear one by one. First of all, gastrointestinal tract becomes oleated, so that normalcy of *Vata Dosha* and intensity of bio-fire are observed initially. Furthermore, when oiliness of stool and loose stool signs

Table 1: Symptoms of adequate oleation observed in 29 subjects

Symptoms of adequate oleation	Group A		Group B	
	No.	%	No.	%
Normalcy of <i>Vata</i>	14	100	15	100
Intensity of Bio-fire	14	100	15	100
Loose stool	14	100	15	100
Oiliness of stool	14	100	15	100
Normal unobstructed evacuation of stool	14	100	15	100
Lightness of body	14	100	15	100
Lightness of abdomen	14	100	15	100
Softness of body parts	14	100	15	100
Oiliness of skin	2	57.14	10	80
Weakness	6	42.86	5	33.33
Fatigue without doing any work	6	42.86	6	40
Aversion to lipids	2	14.28	4	26.66

appear, then it can be concluded that complete oleation of gastrointestinal tract has occurred. This is also called as gastrointestinal tract oleation (*Koshtha Snigdhatta*) in general. Afterwards, the symptoms like softness of body parts and oiliness of skin appear. This reveals that oleation has reached up to peripheral tissue level. This is called as peripheral tissue oleation (*Shakha Snigdhatta*). The symptom of aversion to lipids intake suggests that there is no need of further administration of lipids [Tables 2 and 3].

Thus, from the above data, it can be concluded that the pattern of symptoms of adequate oleation as described by Charaka^[11] and other eminent Scholars appear in a sequential manner. However, some symptoms like oiliness of skin and aversion to lipids are little difficult to achieve and may not appear in all the subjects. Lightness of body present during the initial phase of oleation but its appearance lessens as the dose has increased.

Effect of *Snehana* on both groups

There is significant effect of *Snehana* on *Pureesha Snigdhatta*, *Gatra mardava*, and *Tvak Snigdhatta* in group B compared to the group A [Table 4]. The data indicate that in group B, the % of oleation was more, i.e. 45.28. So, the hypothesis stands true that by giving the dose of *Sneha* with due consideration of bio-fire and bowel habit, better oleation will be obtained [Table 5].

Varsha B. *et al.*, concluded that the *Sneha* given in increasing dose pattern does better oleation leading to better bio-purification.^[12] Aswini K. *et al.*, concluded that oleation by increasing dose pattern is the best choice prior to purgation, as in this group less discomfort during digestion of ghee, grade of oleation is more.^[13]

Oleation grade (*Snigdhatta* grade)

In group A, maximum of 57.14% subjects achieved moderate grade, 28.57% subjects achieved best grade, and 14.28% subjects achieved least. In group B, maximum 73.33% subjects achieved best grade, 26.66% subjects achieved moderate grade, and not a single case of least grade [Table 6].

Relation between oleation grade and purification grade

This data clearly indicate that better quantitative and qualitative oleation provides better grade of purification. In group B, where dose increase was according to bio-fire, the subjects achieved better bouts of purgation, i.e. onset, interval between two bouts, and total purgation period was less [Table 7].

Dose pattern for oleation

The dose pattern was standardized as follows:

- For best strength of bio-fire: 40, 76, 108, 146, 205, 225, and 210 ml
- For medium strength of bio-fire: 37, 75, 116, 152, 201, 276, and 210 ml
- For least strength of bio-fire: 30, 50, 90, 130, 160, 220 ml

Table 2: Pattern of adequate oleation found in subjects of group A

Initiation of symptoms	Mean score						
	I day	II day	III day	IV day	V day	VI day	VII day
Normalcy of Vata	1.1	1.08	1.07	1.21	1.15	1.1	1.12
Intensity of Bio-fire	2.57	2.75	2.06	1.63	1.50	1.11	0.73
Loose stool	3.14	3.07	2.78	2.30	2	2.1	1.87
Oiliness of stool	4.85	4.42	4	3.42	3.15	2.8	2.37
Softness of body parts	-	-	-	2.14	2	1.8	1.75
Oiliness of skin	-	-	-	2.5	2.46	2.3	2
Lightness of body	1.21	1.35	1.42	1.57	2	2.1	2.12
Weakness	-	-	-	2.5	2.25	1.75	1.75
Fatigue without doing any work	-	-	2.25	2.4	2.25	2.16	2
Aversion to lipids	0	0	0	3	2.8	2.75	2.5

Table 3: Pattern of adequate oleation found in subjects of group B

Initiation of symptoms	Mean score						
	I day	II day	III day	IV day	V day	VI day	VII day
Normalcy of Vata	1.22	1.21	1.2	1.13	1.14	1.12	1.0
Intensity of Bio-fire	2.53	2.53	1.83	1.57	1.18	1.11	1.10
Loose stool	3.21	2.92	2.71	2.4	1.85	1.66	1.54
Oiliness of stool	4.42	4.21	3.85	3.4	3.21	2.77	2.5
Softness of body parts	-	-	2.33	1.93	2.5	1.33	1.30
Oiliness of skin	-	-	2.46	2.2	1.78	1.33	1.30
Lightness of body	1.13	1.4	1.73	1.46	1.64	1.66	2.5
Weakness	-	-	2.66	2.66	2.75	2.66	1.5
Fatigue without doing any work	-	-	2.75	2.66	2.33	1.5	1.5
Aversion to lipids	-	-	2	2	2.71	1.4	2

Here scoring pattern was framed in such way that, lesser the score more the Snehana

Table 4: Effect of Snehana on both groups

Symptoms	Mean		%	S D	S E	Unpaired t	P
	Group A	Group B					
Vatanulomana	1.071	1.000	6.54	0.00	0.00	1.000	>0.05
Agnideepti	0.800	0.736	7.5	0.224	0.059	0.419	>0.05
Asamhata Varchas	1.857	1.929	3.78	0.730	0.195	-0.32	>0.05
Pureesha Snigdhata	2.857	2.286	20	0.469	0.125	2.174	<0.05
Gatra Mardava	1.857	1.143	38.45	0.363	0.097	5.204	<0.001
Tvak Snigdhata	2.000	1.500	25	0.519	0.139	2.463	<0.05

S D: Standard deviation, S E: Standard error

Table 5: Total effect of oleation in 29 subjects

Group	Total mean score of symptoms of adequate oleation in seven days							% of oleation
	I day	II day	III day	IV day	VI day	VI day	VII day	
A	32.55	32.51	29.43	26.99	23.55	18.61	14.76	33.57
B	32.88	33.00	28.17	25.56	24.11	13.40	3.786	45.28

Percentage of oleation calculated by taking the average of individual symptoms of adequate oleation

Effect of oleation on lipids

Some modern physicians and subjects undergoing oleation therapy think that it might lead to rise in the lipid levels. There is a fear amongst the medical fraternity and the subjects that oral intake of lipids used for oleation therapy (internal oleation) may lead to an increase in the biochemical parameters, especially the lipids. Oral ingestion of cholesterol is reflected as a mild increase in the plasma concentration. However, when cholesterol is ingested, the rising concentration of cholesterol inhibits the most essential enzyme for endogenous synthesis of cholesterol, thus providing an intrinsic feedback control system to prevent an excessive increase. As a result, the plasma concentration is usually not altered more than $\pm 15\%$ by altering the amount of cholesterol in the diet, although individual responses differ markedly. A highly saturated fat diet increases blood cholesterol concentration up to 15 to 25%. Ingestion of diet containing highly unsaturated fatty acids usually depresses the blood cholesterol concentration to a slight moderate amount [Tables 8-11].^[14]

A review of studies done till date provides an evidence that oral ingestion of lipids (internal oleation) do not cause rise in the level of lipids, rather it facilitates in bringing the increased level lipids to normal; even if the lipid levels increase during oral ingestion of lipids (internal oleation), it is transient and

Table 6: Oleation grade observed in 29 subjects

Oleation grade	Group A		Group B		Total	Percentage
	No. of Pts	%	No. of Pts	%		
Least	2	14.28	0	0	2	6.89
Medium	8	57.14	4	26.66	12	41.37
Best	4	28.57	11	73.33	15	51.72

Table 7: Relation between oleation grade and purification grade

Oleation grade	No. of pts	Purification grade		
		Best (%)	Medium (%)	Least
Group A				
Best	5	120	360	120%
Moderate	7	-	114.2	571.4%
Least	2	-	-	2
Group B				
Best	11	327.3	763.6	19.09%
Moderate	4	250	250	-
Least	0	0	0	0

Table 8: Effect of internal oleation on Biochemical parameters in group A

Biochemical parameters	n	Mean		%	S D	S E	T	P
		B S	A S					
Cholesterol	13	193.5	202.7	↑4.8	20.43	5.67	-1.629	>0.05
Triglycerides	12	145.7	134.8	↓7.47	109.3	31.57	0.345	>0.05
HDL	13	39.98	41.82	↑4.63	11.29	3.13	-0.59	>0.05
LDL	12	122.9	135.0	↑9.87	52.66	15.2	-0.799	>0.05
VLDL	12	29.10	28.62	↓1.65	23.55	6.79	0.071	>0.05

B S: Before Snehana, A S: After Snehana, S D: Standard deviation, HDL: High density lipoproteins, LDL: Low density lipoproteins, VLDL: Very low density lipoproteins

Table 9: Effect of internal oleation on Biochemical parameters in group B

Biochemical parameters	n	Mean		%	S D	S E	T	P
		B S	A S					
Cholesterol	13	170.62	195.0	↑14.95	40.63	11.27	-2.164	>0.05
Triglycerides	13	114.62	143.07	↑24.82	41.64	11.55	-2.47	<0.05
HDL	13	35.55	35.84	↑0.82	16.26	4.51	-0.064	>0.05
LDL	13	109.12	127.78	↑17.10	41.59	11.53	-1.62	>0.05
VLDL	13	20.95	26.70	↑27.44	8.98	2.49	-2.31	<0.05

B S: Before Snehana, A S: After Snehana, S D: Standard deviation, HDL: High density lipoproteins, LDL: Low density lipoproteins, VLDL: Very low density lipoproteins

Table 10: Effect of purgation therapy on Biochemical parameters in group A

Biochemical parameters	n	Mean		%	S D	S E	T	P
		B S	A V					
Cholesterol	13	193.54	192.46	↓0.56	17.16	4.76	0.226	>0.05
Triglycerides	12	145.75	104.58	↓24.13	61.41	17.73	2.32	<0.05
HDL	13	39.98	40.25	↑0.67	10.92	3.03	-0.088	>0.05
LDL	12	122.95	128.15	↑4.22	30.62	8.83	-0.588	>0.05
VLDL	12	29.11	20.92	↓28.17	12.31	3.55	2.305	<0.05

B S: Before Snehana, A V: After Virechana, S D: Standard deviation, HDL: High density lipoproteins, LDL: Low density lipoproteins, VLDL: Very low density lipoproteins

Table 11: Effect of purgation therapy on biochemical parameters in group B

Biochemical parameters	n	Mean		%	S D	S E	T	P
		B S	A V					
Cholesterol	13	170.62	185.85	↑8.93	49.43	13.71	-1.11	>0.05
Triglycerides	13	114.62	121.07	↑5.6	62.82	17.42	-0.37	>0.05
HDL	13	35.55	40.54	↑14	13.93	3.86	-1.29	>0.05
LDL	13	109.12	120.74	↑10.65	75.93	9.97	-1.16	>0.05
VLDL	13	20.95	24.76	↑18.83	12.96	3.59	-1.262	>0.05

B S: Before Snehana, A V: After Virechana, S D: Standard deviation, HDL: High density lipoproteins, LDL: Low density lipoproteins, VLDL: Very low density lipoproteins

comes to normal after adequate Bio-Purification (*Samyak Shodhana*). The fear associated with the oral ingestion of lipids might be dispelled; thus, oleation therapy might be better acceptable. Judicious use of oral lipids aimed at Bio-Purification can be done even in cardiac diseases, non-insulin-dependent Diabetes mellitus where the lipids levels are usually abnormal. A prior medication aimed to bring about drying secretions of the body (*Rukshana Karma*) is advised in these specific conditions.^[15] A careful consideration of humors (*Dosha*), Tissue (*Doosha*), Channels (*Srotas*), Digestive fire (*Agni*), *Ama*, etc., prior to the oleation procedure.^[16]

Conclusion

- Increasing dose pattern according to bio-fire and bowel habit in group B provided better results, so it is obligatory to consider these two factors for dose fixation and duration of oleation
- The onset of various symptoms of adequate oleation occurs in a sequential manner which is helpful in predicting the duration of oleation and also for deciding the GIT oleation and peripheral tissue oleation
- The newly formulated criteria for assessment of oleation Grade should be incorporated for assessing the oleation grade
- If purgation is performed after proper oleation, superior and safer purification is achieved.

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हिन्दी सारांश

शोधनार्थ आभ्यन्तर स्नेहन की मात्रा एवं पद्धति का चिकित्सकीय अध्ययन

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आभ्यान्तर स्नेहन एक महत्वपूर्ण पूर्वकर्म है, जिसे शोधन के पूर्व प्रयोग किया जाता है। पूर्वकर्म शोधन के परिणाम को प्रभावी बनाता है। इसलिये आभ्यन्तर स्नेहन का प्रयोग करने के लिये मानकीकरण की आवश्यकता है। आभ्यन्तर स्नेहन की मात्रा युक्ति:अग्नि एवं कोष्ठ की परीक्षा करने के बाद निश्चित करते हैं। इस अध्ययन को कुल २९ स्वस्थ एवं रोगियो किया गया। समूह अ में स्नेह स्थिर मात्रा में और समुह इ में स्नेह वर्धमान मात्रा में दिया गया। इस अध्ययन के परिणाम अनुसार, समुह अ में कुल ३३.५०% और समुह इ में कुल ४५.२८% स्नेहन प्रभाव प्राप्त हुआ। समुह इ के स्वस्थ एवं रोगियों में स्नेहन का उत्तम परिणाम मिला।