



Research Article

## A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF *MUDGA YUSHA* AND *USHNAJALA* AS *ANUPANA* FOR *SHODHANANGA SNEHAPANA* IN THE MANAGEMENT OF HYPERLIPIDEMIA

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#### KEYWORDS:

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*Virechana*.

### ABSTRACT

The unique concept of *Anupana* is well explained in Ayurveda as an adjuvant to therapeutic drug, which can be given either before or after or along with drug or diet and has the properties that can counteract the disease and can facilitate the drug action. There are specific *Anupanas* mentioned for different *Sneha dravyas*. As the special *Anupana* for *Taila* is *Yusha*, and general *Anupana* is *Ushna jala*, this study intends to observe the therapeutic effect of *Ushnajala* and *Mudga yusha* as *Anupana* for *Shodhananga snehapana* in hyperlipidemia which is a burning issue with a prevalence 25-30% of urban and 15-20% in rural subjects and has close resemblance with “*Abaddha Medas*”, *Dhamani Praticchaya*”, “*Dhamani Upalepa*” etc. The study was a comparative clinical study with pre and post-test design involving 2 groups with 20 subjects in each group. In Group A *Ushnajala* was given as *Anupana* for *Shodhananga tailapana* and in group B *Mudga yusha* was given followed by *Virechana* in both the groups. The assessment of *Sneha Jeeryamana lakshanas*, *Sneha jeerna lakshanas*, *Samyak snigdha lakshanas* and pre and post lipid profile were done. In group B the *Sneha jeeryamana lakshanas* were seen for a shorter duration, *Sneha Jeerna lakshanas* were observed quickly compared to group A with p value <0.001 for most of the subjective parameters. There was highly significant reduction in lipid values in both the groups with p value <0.001 in both the groups. Based on the result it can be concluded that *Mudga yusha anupana* for *Shodhananga tailapaana* is better than *Ushna jala anupana*.

### INTRODUCTION

*Shodhananga snehapana* plays a vital role as a *Poorvakarma* in achieving *Dosha utklishta avastha* before performing *Vamana* or *Virechana*. For each type of *Sneha* different *Anupanas* are mentioned which has a crucial role. To get the desired effect of *Shodhana* the specific *Anupanas* mentioned in the classics are to be followed. The unique concept of *Anupana* is well explained in Ayurveda as an adjuvant to therapeutic drug, which can be given either before or after or along with drug or diet [1] and has the properties that can

counteract the disease and can facilitate the drug action.[2] *Anupana* helps in distribution and absorption of drug throughout the body very quickly, helps in reaching the target site, enhances the bioavailability of the drug, reduces the side effects, enhances the potency and has catalytic action (*Yogavahi*). A single formulation when administered with different *Anupanas* like *Ushnajala*, *Madhu*, *Ghruta*, *Manda*, *Yusha*, *Ksheera*, *Takra* etc has different therapeutic effects. Similarly, *Ushnajala* which is having properties like *Laghu*, *Ushna*, *Kanthya*, *Deepana*, *Pachana*[3] is mentioned as a general *Anupana* for *Chaturvidha snehas*[4]. Because of the foresaid properties it aids in easy digestion of *Sneha* and reduces the *Snehavyapath*. Particular *Anupanas* like *Ushna jala* for *Ghruta*, *yusha* for *Taila* and *Manda* for *Vasa-majja* [5] are mentioned. Specifically, *Yusha* is mentioned as *Anupana* for *Taila*. Among *Yushas*, *Mudga Yusha* is considered to be the best as it is *Hridya*, *Agnideepana* *Sheetala*, *Madhura*,

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*Pathya* in *Kapha*, *Pitta-rakta vikaras*<sup>[6]</sup>. *Taila* is having *Ushna veerya*, *Guru* and *vidahi guna*. *Mudga yusha* which is given as *Anupana* for *Taila* may help in counteracting these *Gunas* of *taila*. Though in practice *Ushna jala* as an *Anupana* is commonly used for all types of *Snehas* research work is the need of the hour to know the intended effect of specific *Anupanas*. As the specific *Anupana* for *Taila* is *Yusha*, and general *Anupana* is *Ushna jala*, this study intends to observe the therapeutic effect of *Ushanaja* and *Mudga yusha* as *Anupana* for *Shodhananga snehapana*. Hyperlipidemia is one *Tailapana yogya vyadhi* where *Shodhananga snehapana* with *Moorchita tilataila* followed by *Ushna jala anupana* has shown significant result in reducing the hyperlipidemic values.

### AIMS AND OBJECTIVES

1. To evaluate the efficacy of *Mudga yusha* as *Anupana* for *Shodhananga snehapana* in hyperlipidemia.
2. To evaluate the efficacy of *Ushna jala* as *Anupana* for *Shodhananga snehapana* in hyperlipidemia.
3. To compare the effect of *Mudga yusha* and *Ushnajala anupana* for *Shodhananga snehapana* in hyperlipidemia.

### MATERIAL AND METHODS

#### Source of Data

Subjects for the study were selected incidentally from the OPD and IPD of Government Ayurveda Medical College and Hospital, Mysuru and Government Hi - Tech Panchakarma Hospital, Mysuru.

#### Source of Drug

Required formulations for the study was prepared in Rasashastra lab of Government Ayurveda Medical College and Hospital Mysuru. *Mudga Yusha* was prepared freshly in the pharmacy of Government Ayurveda Medical College and Hospital, and Government Hi -Tech Panchakarma Hospital, Mysuru.

#### Method of Collection of Data

##### A. Screening

##### Plan of Intervention

- A screening proforma was created with all aspects of history signs and symptoms of hyperlipidemia
- Laboratory investigations were performed to arrive at proper diagnosis.

##### B. Diagnostic Criteria

Combination of the below abnormal biochemical values or in any one of the below in subjects were considered.

Total serum cholesterol -More than 200mg/dl

Serum Triglycerides -More than 160mg/dl

Serum LDL -More than 130mg/dl,

Serum VLDL- More than 60mg/dl

Serum non-HDL -More than 160mg/dl

##### C. Inclusion Criteria

1. Subjects fulfilling the diagnostic criteria.
2. Subjects who are fit for *Shodhananga Snehapana* and *Virechana*.
3. Age between 20-50 years irrespective of gender.
4. Freshly or previously detected cases of hyperlipidemia.

##### D. Exclusion Criteria

1. Subjects with other systemic illness.
2. Subjects with hypertension. (>150/100mmhg)
3. Pregnant and lactating woman.

##### Study Design

A comparative clinical trial with pre and post test design

##### Plan of Study

- Sampling – Purposive sampling
- Sample size – 40
- Intervention – The subjects were divided into two groups with 20 subjects in each group. Group A- *Ushnajala* was given as *Anupana* for *Shodhananga snehapana* and in group B *Mudga yusha* was given as *Anupana* followed by *Virechana*.

**Table 1: Plan of intervention**

	Group A	Group B
Poorvakarma	<i>Deepana pachana</i> with <i>Chitakadi Vati</i> 250mg bid before food with <i>Ushna jala</i> till the appearance of <i>Nirama lakshana</i> .	<i>Deepana pachana</i> with <i>Chitakadi Vati</i> 250mg bid before food with <i>Ushna jala</i> till the appearance of <i>Nirama lakshana</i> .
Pradhana karma	<i>Shodhananga Snehapana</i> with <i>Moorchitha Tila Taila</i> will be administered in <i>Arohana krama</i> till attainment of <i>Samyak Snigdha Lakshana</i> [min 3 days – max 7 days].	<i>Shodhananga Snehapana</i> with <i>Moorchitha Tila Taila</i> will be administered in <i>Arohana krama</i> till attainment of <i>Samyak Snigdha Lakshana</i> [min 3 days – max 7 days].
Anupana	<i>Ushnajala</i> will be given as <i>Anupana</i> during <i>Snehapana</i> till the appearance of <i>Snehajeerna lakshana</i> .	<i>Akruta mudga yusha</i> will be given as <i>Anupana</i> during <i>Snehapana</i> till the appearance of <i>Snehajeerna lakshana</i> .

<b>Dose</b>	<b>Q. S</b>	<b>Q. S</b>
<i>Paschath karma</i>	<i>Virechana with Trivruth lehya (dose – 30 - 80gm depending upon Agni and Koshta)</i> <i>Samsarjana krama depending on Shuddhi</i>	<i>Virechana with Trivruth lehya (dose – 30- 80gm depending upon Agni and Koshta)</i> <i>Samsarjana krama depending on Shuddhi</i>

**Assessment Schedule**

Pre-test assessment- 0<sup>th</sup> day- before *Deepana pachana*

Post test assessment- 1 day after attainment of *Samyak snigdha lakshana*

**Assessment criteria**

**Subjective Parameters**

- *Sneha jeeryamana lakshana*
- *Sneha jeerna lakshana*

**Scoring of Jeeryamana lakshana**

<b>Time Duration</b>	<b>Score</b>
0-1 hr	0
1-2 hrs	1
2-3 hrs	2
3-4 hrs	3
4-5 hrs	4
> 5 hrs	5

**Scoring of Sneha jeerna lakshana**

<b>Time Duration</b>	<b>Score</b>
0-3 hrs	0
3-6 hrs	1
6-9 hrs	2
9-12 hrs	3
12-15 hrs	4
> 15 hrs	5

**Scoring of Snigdha lakshana<sup>[7]</sup>**

**Vatanulomana**

<b>Lakshanas</b>	<b>Score</b>
<i>Urdhwa Vata Pravrutti with Udgarabahulya and Adhmana</i>	5
<i>Urdhwa Vata Pravrutti with Udgara and Adhmana</i>	4
<i>Alpa Adhmana and Udara Gaurava</i>	3
<i>Vatanulomana and Udara Laghuta Abhava</i>	2
<i>Vatanulomana and Udara Laghuta</i>	1

**Mala samhati**

<b>Lakshana</b>	<b>Score</b>
<i>Ati-Shushka and Grathita</i>	5
<i>Grathita</i>	4
<i>Susamhata</i>	3
<i>Shithilta</i>	2
<i>Drava</i>	1

- *Samyak snigdha lakshana*

**Objective parameters**

Lipid profile

- Pre test (one day before the commencement of *Deepana* and *Pachana*)
- Post test (one day after attainment of *Samyak snigdha lakshana*)

**Puresha snigdhta**

<b>Lakshana</b>	<b>Score</b>
<i>Ruksha Purisha</i>	5
<i>Alpa Sneha Purisha</i>	4
<i>Madhyama Sneha Purisha</i>	3
<i>Bahu Sneha Pausha</i>	2
<i>Sneha matra nisharana</i>	1

**Gatra Snigdhta**

<b>Lakshana</b>	<b>Score</b>
<i>Twak Kharata</i>	5
<i>Twak Parusata</i>	4
<i>Twak Rukshata</i>	3
<i>Twak Samanya</i>	2
<i>Twak Snigdhta</i>	1
<i>Twak Ati-Snigdhta</i>	0

**Anga Laghava (According to Kala)**

<b>Lakshana</b>	<b>Score</b>
Absent in all 24hrs	5
Present after 18-24hrs	4
Present after 12-17hrs of <i>Snehapana</i>	3
Present after 6-11hrs of <i>Snehapana</i>	2
Present after 3-5 hrs of <i>Snehapana</i>	1

**Udara Laghava**

<b>Lakshana</b>	<b>Score</b>
Absent in all 24hrs	5
Present after 18-24hrs	4
Present after 12-17hrs of <i>Snehapana</i>	3
Present after 6-11hrs of <i>Snehapana</i>	2
Present after 3-5 hrs of <i>Snehapana</i>	1

**Malanulomana**

<b>Lakshana</b>	<b>Score</b>
<i>No Malapravritti</i>	4
<i>Asantushta, Sapravahana</i>	3
<i>Santushta Sapravahana</i>	2
<i>Santushta Apravahan</i>	1

**Gatra Mardava**

<b>Lakshana</b>	<b>Score</b>
<i>Alpa Mriduta</i>	3
<i>Madyama Mriduta</i>	2
<i>Uttama Mriduta</i>	1

**Sada and Klama**

<b>Lakshana</b>	<b>Score</b>
<i>Alpa</i>	3
<i>Madyama</i>	2
<i>Bahu</i>	1

**Snehodvega**

Lakshana	Score
Alpa Dwesha, still the person will be able to take ghee without force	3
Madhyama Dwesha by tasting, person will be able to take ghee on forcing	2
Bahu Dwesha by tasting, seeing and smelling, person will not be able to take at all	1

- For assessing the Snigdhatta Grade on the bases of Samyak Snigdhatta Lakshana, an equation was developed as follows.
- Total score of Samyak Snigdhatta Lakshana is 41.
- After analyzing the score of Samyak Snigdhatta Lakshana, Different grades of Snigdhatta has been framed by giving range of score

**Total scoring of Snigdhatta Lakshana**

Score	Snigdhatta grade
9-16	Uttama
17-24	Madhyama
25-32	Avara
>32	Ayoga
<9	Atiyoga

**OBSERVATIONS AND RESULTS**

Effect of Anupana on Sneha jeeryamana lakshana

**Table 3: Effect of Anupana on the duration of Sneha jeeryamana lakshanas**

Lakshanas	0-1hr	1-2hr	2-3hrs	3-4hrs	>5hrs	0-1hr	1-2hr	2-3hrs	3-4hrs	>5hrs
	<b>Group A</b>					<b>Group B</b>				
Shiroruk	54.1%	6.12%	15.3%	13.2%	10.2%	97%	3%	0%	0%	0%
Bhrama	54.1%	33.7%	1.02%	2.04%	5.1%	99%	0%	0%	0%	1%
Nishtiva	95.9%	0	1.02%	0	3.06%	99%	0%	1%	0%	0%
Sada	31.63%	9.18%	9.18%	10.2%	39.8%	99%	1%	0	0	0
Arati	100%	0	0	0	0	100%	0	0	0	0
Klama	11.2%	22.4%	5.1%	6.1%	27.5%	88%	0	5%	6%	1%
Daha	54.1%	6.12%	15.3%	13.2%	10.2%	97%	3%	0%	0%	0%
Trishna	54.1%	6.12%	15.3%	13.2%	10.2%	97%	3%	0%	0%	0%

**Table 4: Statistical test values**

Sneha jeeryamana lakshanas	Statistical test
Shiroruk	Group B is highly significant than Group A at p <0.001
Bhrama	Group B is highly significant than Group A at p <0.0001
Nishtiva	No significant difference between the groups at p 0.08
Sada	Group B is highly significant than Group A at p <0.001
Arati	There is no significant difference between the groups at 0.91
Klama	Group B is highly significant than Group A at p <0.001
Daha	Group B is highly significant than Group A at p <0.001
Trishna	Group B is highly significant than Group A at p<0.001

**Effect of Anupana on Sneha Jeerna lakshana**

**Table 5: Effect of Anupana on the duration of Sneha jeerna lakshanas**

	0-3hr	3-6hr	6-9hr	9-12 hrs	12-15hrs	0-3hr	3-6hr	6-9hr	9-12 hrs	12-15hrs
	Group A					Group B				
<i>Jeeryamana Lakshana shanti</i>	54.1%	6.12%	15.3%	13.2%	10.2%	95%	5%	0	0	0
<i>Laghava</i>	9.18%	11.2%	82.7%	10.2%	9.18%	14%	29%	56%	10%	0
<i>Vatanulomana</i>	3.1%	8.2%	55%	29.6%	4.1%	10%	18%	57%	9%	6%
<i>Swasthya</i>	0	7.3%	69.4%	4.1%	0	2%	35%	48%	8%	3%
<i>Kshuth</i>	4.1%	28.6%	55.1%	2.04%	0	8%	49%	33%	6%	3%
<i>Trishna</i>	11.2%	23.5%	53.1%	11.2%	1.02%	0	75%	18%	7%	0
<i>Udgara shuddhi</i>	11.2%	23.5%	53.1%	11.2%	1.02%	0	75%	18%	7%	0

**Table 4: Statistical test values with interpretation**

<i>Jeeryamana Lakshana shanti</i>	Group B is highly significant than Group A at p <0.0001
<i>Laghava</i>	Group B is highly significant than Group A at p <0.0001
<i>Vatanulomana</i>	There is no significant difference between both the groups at p - 0.99
<i>Swasthya</i>	There is no significant difference between the groups at p -0.1
<i>Kshuth</i>	There is no significant difference between the groups at p -0.5
<i>Trishna</i>	Group B is highly significant than Group A at p <0.001

**Effect of Anupana on Samyak snigdha lakshana**

**Table 6: Effect of Anupaana on Samyak snigdha lakshana**

	Day 4	Day 5	Day 6	Day 7
Group A	1 (5%)	14 (70%)	5 (25%)	0
Group B	0	17 (85%)	3 (15%)	0

**Table 7: Effect of Anupaana on Virechana**

<i>Vegas</i>	0-10	11-20	21-30
Group A	1 (5%)	9 (45%)	10 (50%)
Group B	0	8 (40%)	12 (60%)

*Pravara shuddhi* was seen more in group B than group A

**Effect on Total Cholesterol**

Group A - The mean value of total cholesterol reduced from 232 to 200 after treatment.

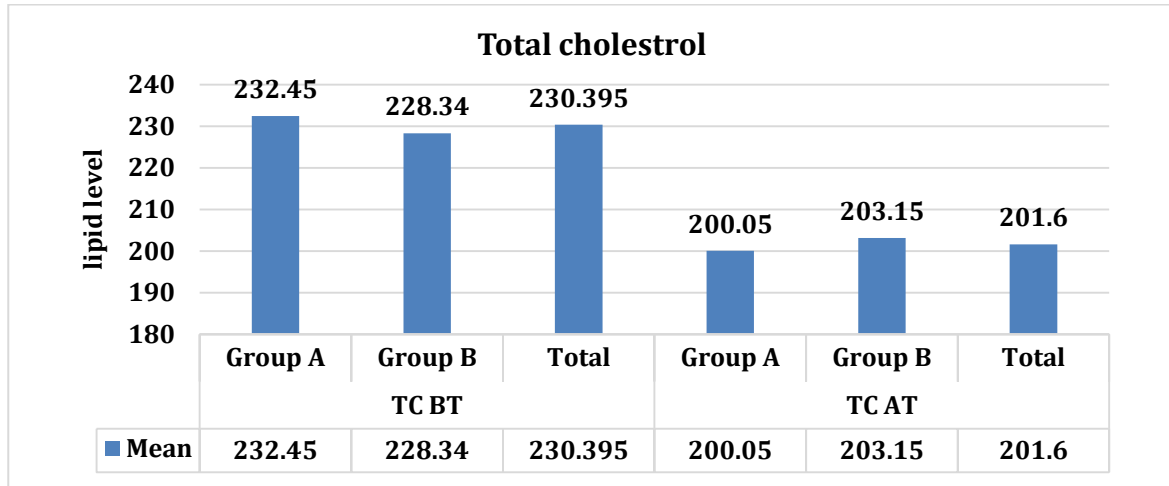
Group B - The mean value of total cholesterol reduced from 228 to 203 after treatment.

Statistical test reveals that both groups are highly significant at p<. 000

**Table 8: Effect of treatment on Total cholesterol**

	Groups	Mean	Sig. in group A	Sig in group B
TC BT	A	232.4500	.002	.007
	B	228.3400		
	Total	230.3950		
TC AT	A	200.0500		
	B	203.1500		
	Total	201.6000		

**Illustration 1: Effect of treatment on Total cholesterol**



**Effect on Triglycerides**

Group A - The mean value of triglycerides reduced from 323 to 181 after treatment.

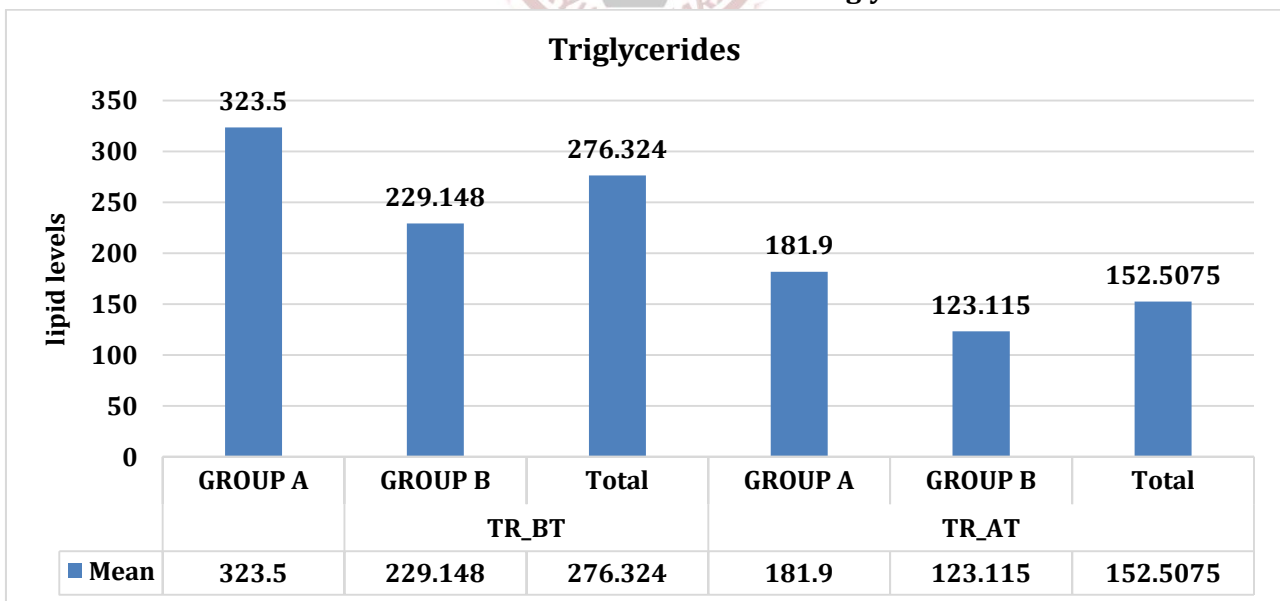
Group B - The mean value of triglycerides reduced from 229 to 123 after treatment.

Statistical test reveals that both groups are highly significant at  $p < .000$

**Table 9: Effect of Treatment on Triglycerides**

	Groups	Mean	Sig Group A	Sig Group B
TR_BT	A	323.5000	.000	.000
	B	229.1480		
	Total	276.3240		
TR_AT	A	181.9000		
	B	123.1150		
	Total	152.5075		

**Illustration 2: Effect of Treatment on Triglycerides**



**Effect on HDL**

Group A - The mean value of HDL reduced from 45 to 38 after treatment

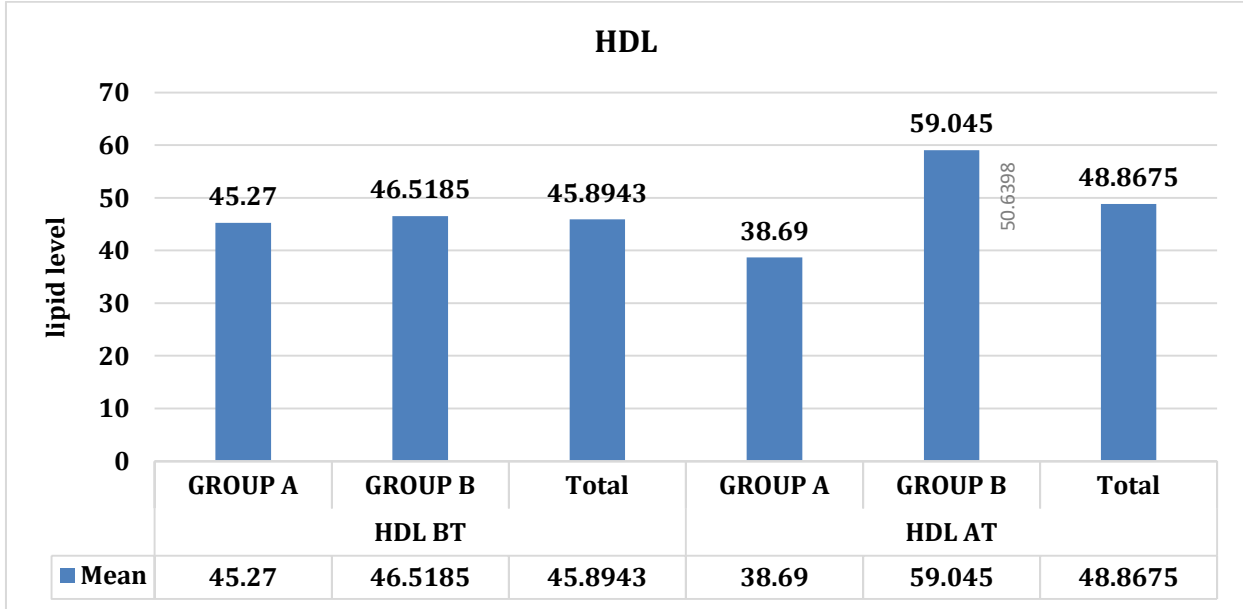
Group B - The mean value of HDL raised from 46 to 59 after treatment

Statistical test reveals that group B is better than group A

**Table 10: Effect of Treatment on HDL**

	Groups	Mean	Sig in group A	Sig in group B
HDL BT	A	45.2700	.422	.001
	B	46.5185		
	Total	45.8943		
HDL AT	A	38.6900		
	B	59.0450		
	Total	48.8675		

**Illustration 3: Effect of Treatment on HDL**



**Effect on LDL**

Group A - The mean value of LDL reduced from 135 to 129 after treatment

Group B - The mean value of LDL reduced from 139 to 132 after treatment

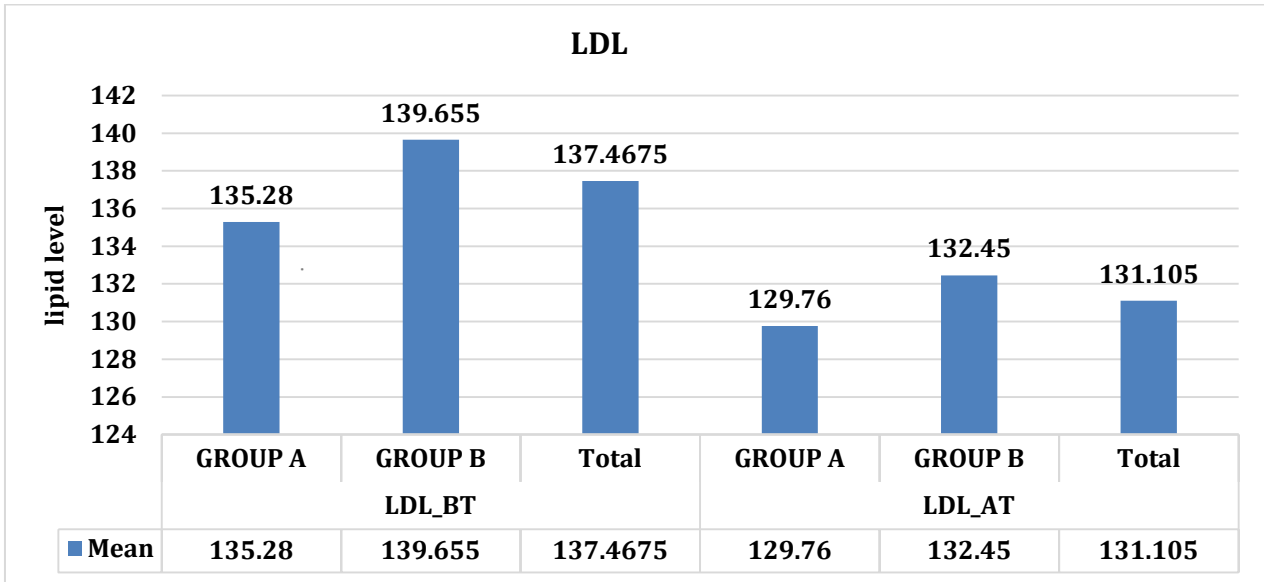
Statistical test reveals that both groups are not significant

**Table 11: Effect on LDL**

	Groups	Mean	Sig	
			In group A	In group B
LDL_BT	A	135.2800	.476	.222
	B	139.6550		
	Total	137.4675		
LDL_AT	A	129.7600		
	B	132.4500		
	Total	131.1050		



**Illustration 4: Effect on LDL**



**Effect on VLDL**

Group A - The mean value of VLDL reduced from 64 to 36 after treatment.

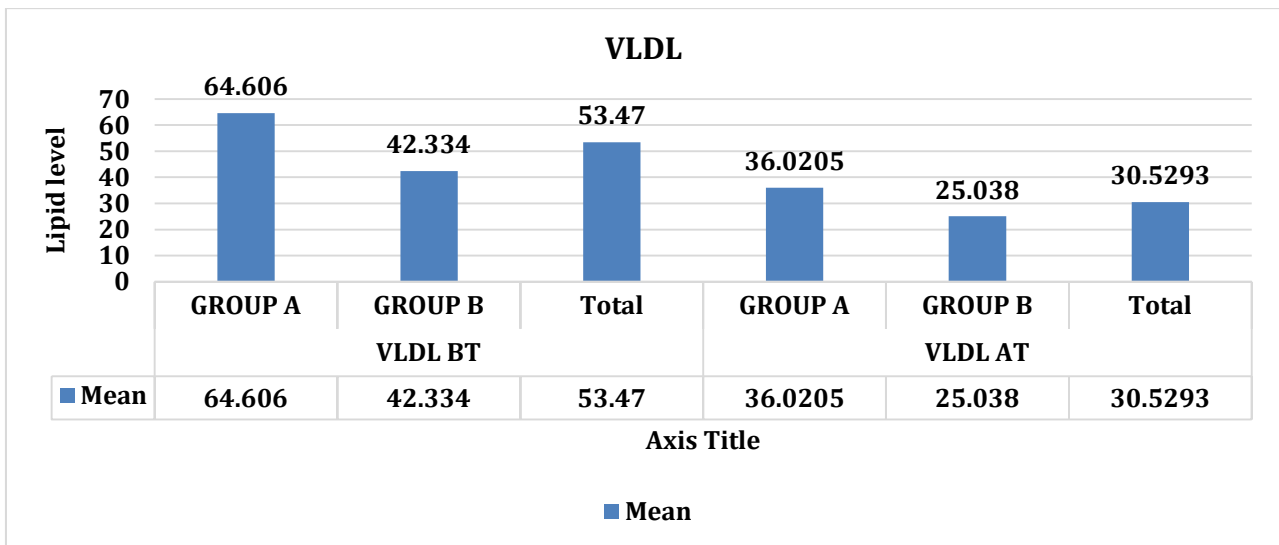
Group B - The mean value of VLDL reduced from 42 to 25 after treatment.

Statistical test reveals that both groups are highly significant at  $p < .000$

**Table 12: Effect On VLDL**

	Groups	Mean	Sig.	
			In group A	In group B
VLDL BT	A	64.6060	.000	.000
	B	42.3340		
	Total	53.4700		
VLDL AT	A	36.0205		
	B	25.0380		
	Total	30.5293		

**Illustration 5: Effect on VLDL**



**Overall Result**

Significant reduction in *Jeeryamana lakshanas* when *Mudga yusha* was used as *Anupana*.

*Jeerna lakshanas* appeared quickly in those who consumed *Mudga yusha* compared to *Ushnajala* group.

There was no significant difference in attainment of *Samyak snigdha lakshanas*.

*Pravara shuddhi* was noticed in both the groups but was comparatively higher in the group where *Mudga yusha* was given as *Anupaana*.

Lipid profile was significantly reduced in both the groups which may be due to the hypolipidemic action of *Moorchita tila taila*.

**DISCUSSION**

Discussion on *Jeeryamana laskshanas*

Symptoms	Causes	Effect of <i>Mudga yusha anupana</i>
<i>Shiroruk</i>	<p><i>Taila</i> is having <i>Guru manda</i> and <i>Picchila guna</i> and is in <i>Alpa matra</i> when compared to normal amount of food which a person is daily habituated to. <i>Agni</i> will be more and the <i>Sneha matra</i> will be less. Due to which there will be <i>Vata prakopa</i> and due to <i>Samana guna</i> of <i>Sneha</i> there will be <i>Kapha vriddhi</i> leading to further <i>Avarodhajanya vata vriddhi</i>. Leading to <i>Urdhwagati</i> of <i>Vata</i> resulting in <i>Shirashoola</i>.</p> <p><b>Probable hypothesis</b></p> <ul style="list-style-type: none"> <li>• Digestive distress due to high lipid diet</li> <li>• Overstimulation of the digestive system: leading to discomfort and tension, which can manifest as a headache.</li> <li>• Dehydration: Oils can increase the body's need for water during digestion this can contribute to dehydration-related headaches.</li> </ul>	<p>When <i>Mudga yusha</i> is administered initially it does <i>Sadyo tarpana</i> leading to <i>Vata Shamana</i> and because of its <i>Usha</i> and <i>Drava guna</i> it does <i>Vatanulomana</i> owing to its <i>Kaphavata</i> hara properties it helps in <i>Samprapti vighatana</i>. Due to its <i>Agnideepana</i> and <i>Sheeghrapaki</i> property it corrects the <i>Agnivyapara</i> and helps in easy digestion of <i>Sneha</i>.</p> <p><b>Probable hypothesis</b></p> <p><i>Mudga yusha</i> contains several phytoconstituents that may contribute to its headache-relieving properties:</p> <ul style="list-style-type: none"> <li>• Magnesium: This mineral helps relax blood vessels and muscles, potentially reducing tension headaches.</li> <li>• Antioxidants: Compounds like flavonoids and phenolic acids in green gram have anti-inflammatory and antioxidant effects, which can help alleviate headaches related to inflammation.</li> <li>• Hydration: Consuming <i>Mudga yusha</i> can help to relieve headaches associated with dehydration</li> </ul>
<i>Bhrama</i>	<p>It was observed that <i>pitta prakriti</i> individuals had more tendency. This might be due to <i>Pitta prakopa</i> caused by <i>Ushna veerya</i> and <i>Vidahi guna</i> of <i>Taila</i>.</p> <ul style="list-style-type: none"> <li>• Increased Gastrointestinal Activity Excessive enzyme activity can increase gut motility, leading to discomfort, nausea, or dizziness as the body tries to cope with the sudden influx of heavy substances.</li> <li>• Hormonal Response Cholecystokinin (CCK): High-fat intake can increase levels of CCK, a hormone that stimulates the gallbladder to release bile. Elevated CCK can lead to digestive distress and may indirectly cause giddiness.</li> </ul>	<p>As <i>Mudga yusha</i> is having <i>Madhura vipaka</i> and <i>Sheeta veerya</i> which counter acts the <i>Gunas</i> of <i>Pitta</i>.</p> <ul style="list-style-type: none"> <li>• B Vitamins: Mung beans are rich in B vitamins (like B1, B2, B3, and folate), which support energy metabolism and help reduce fatigue and dizziness.</li> <li>• Saponins: These compounds have anti-inflammatory properties and may help soothe the digestive tract, alleviating nausea and dizziness.</li> <li>• Hydration: Fluid Balance: The soup provides hydration, which can help stabilize blood pressure and prevent dehydration-related dizziness.</li> <li>• Easily Digestible: reduces discomfort and giddiness.</li> </ul>

<p><b>Nishtiva</b></p>	<ul style="list-style-type: none"> <li>• During the first stage of <i>Avastha paka kapha</i> is produced which is having similar qualities of <i>Sneha</i> like <i>Drava, guru</i> and <i>Manda guna</i>. This might also be because of <i>Dosha utklesha</i>.</li> <li>• Gustatory Response: The rich, oily nature of sesame oil can stimulate the salivary glands as part of the digestive response, leading to increased saliva production.</li> <li>• Fatty Stimuli: High-fat foods can trigger a reflex in the mouth, resulting in increased salivation as the body prepares for digestion.</li> </ul>	<p><i>Kaphahara</i> and <i>Agni Deepana guna</i> of <i>Mudga yusha</i> helps in relieving this symptoms.</p> <ul style="list-style-type: none"> <li>• Easily Digestible: Green gram soup is light and easy to digest, which can help settle the stomach. This digestive comfort can alleviate the irritation that may cause salivation.</li> <li>• The presence of soluble fiber and phytochemicals in green gram soup can help moderate digestive enzyme activity. By regulating enzyme secretion, the soup may reduce the excessive salivation response linked to overstimulation of the digestive system.</li> </ul>
<p><b>Sada</b></p>	<ul style="list-style-type: none"> <li>• This is mainly caused due to <i>Gurutwa</i> of <i>Sneha</i> when administered in <i>Bahu Matra</i></li> <li>• Digestive Load Heavy and Rich Composition: Sesame oil is dense and oily, which can place a significant burden on the digestive system. When consumed in large quantities, especially on an empty stomach, the body must exert considerable energy to break it down. This can lead to feelings of lethargy and fatigue as the body prioritizes digestion over other activities.</li> <li>• Fluid Imbalance: The high fat content can lead to dehydration. Dehydration can contribute to feelings of fatigue</li> </ul>	<p><i>Sadyo tarpana, Tushti, Pushti prada</i> and <i>Balya</i> properties of <i>Yusha</i> helps in counteracting this.</p> <p>Hydration:</p> <ul style="list-style-type: none"> <li>• Fluid Balance: The soup provides hydration, which is crucial for maintaining energy levels.</li> <li>• Nutrient-Rich Composition: Green gram soup is rich in B vitamins (like B1, B2, and B3) and essential minerals (like magnesium and potassium), which support energy metabolism and help combat fatigue. These nutrients are vital for converting food into energy and maintaining overall vitality.</li> </ul>
<p><b>Daha</b></p>	<p><i>Daha</i> in the form of <i>Uro daha</i> and <i>Guda daha</i> were observed. This might be due to <i>Pitta prakopa</i> caused by <i>Ushna veerya</i> and <i>Vidahi guna</i> of <i>Taila</i>.</p> <ul style="list-style-type: none"> <li>• High Fat Content: Sesame oil is rich in fats, which can slow down gastric emptying. This delay can lead to increased pressure in the stomach, causing the lower esophageal sphincter (LES) to relax, allowing stomach acid to flow back into the esophagus.</li> </ul>	<p>As <i>Mudga yusha</i> is having <i>Madhura vipaka</i> and <i>Sheeta veerya</i> which counteracts the <i>Gunas</i> of <i>Pitta</i></p> <ul style="list-style-type: none"> <li>• pH Balance: Green gram soup is relatively alkaline compared to sesame oil. Consuming it can help neutralize excess stomach acid, potentially raising the pH in the stomach and esophagus, which can alleviate heartburn symptoms.</li> </ul>

**Discussion on Snehajeerna lakshana**

**Sneha jeeryamana lakshana shanti, Swasthya**

*Sneha Jeeryamana lakshana shanti* appears once the *Sneha* gets digested. *Swasthya* is a feeling of wellness which is attained after the *Shanti* of *Sneha Jeeryamana lakshanas*. This was observed first in Group B compared to group A. This was because of *Agni deepana ama Pachana, Sadya tarpana, Laghu guna, Sheeta veerya and Sheeghra paki* nature of *Mudga yusha* when compared to *Ushna jala*.

**Laghava** – *Laghava* is attained once the *Sneha Jeerna* takes place as *Sneha* is *Guru*. Time duration to attain this *Lakshana* in group B was lesser compared to group

A This indicates that *Sneha Jeerna* took place easily on Group B owing to the *Kaphavatahara, Agni Deepana ama Pachana, Laghu guna* and *Sheeghra paki* nature of *Mudga Yusha* when compared to *Ushna Jala*.

**Vatanulomana**

Both the groups attained this *Lakshana* in almost same duration.

*Sneha* by virtue of its *Snigdha, Sara* properties normalizes the *Anulomana gati* of *Vata*. As *Vatanulomana guna* is found in both *Mudga yusha* and *Ushna Jala* it helps in normalizing the *Gati* of *Vata* by helping in proper *Jeerna* of *Sneha*.

**Udgara Shuddhi, Kshuth, Trishna**

*Udgara Shuddhi, Kshuth and Trishna* are the prime *Lakshanas* to indicate complete *Jeerna of Sneha*. *Swasthya* - A feeling of wellbeing is observed once the *Jeeryamana lakshanas* settle down. These *Lakshanas* were seen in Group B prior to group A. Though statistically there wasn't a significant difference in the time duration, clinically a significant difference was found. Mainly the *Agni deepana* and *Sheeghra paki guna* of *Mudga yusha* aids in quicker digestion of *Sneha* compared to *Ushna jala*.

**CONCLUSION**

Thus it can be concluded that *Mudgayusha* as *Anupana* for *Shodhananga snehapana* with *Moorchita tila taila* is very effective in reducing all the *Sneha jeeryamana lakshanas* and also helps in attaining *Sneha jeerna* and *Samyak snigdha lakshanas* in comparatively lesser time and helps in attaining proper *Virechana vegas* than that of *Ushna jala*.

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