

Effect of *El-Vireka*, *Mudgadi Kashaya* and *Triphala Udvartana* in *Athisthaulya* (Obesity) - A case study

A.M.S.L. Chandrasiri, ¹ E.R.H.S.S. Ediriweera ^{2*}

¹ 5th BAMS Scholar, ²Professor, Department of Nidana Chikithsa, Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka.

Abstract:

Ayurveda mentions *Athisthaulya* under *Ashtaninditha Purusha* (eight undesirable conditions). It arises due to vitiation of *Kapha Dosha*, *Vata Dosha* and *Medo Dhathu*. *Athisthaulya* can be correlated with obesity, the chronic, highly prevalent abnormal metabolic condition affecting millions of lives. Therefore, it was decided to observe the effect of *Virechana Karma* followed by oral administration of *Mudgadi Kashaya* and external application of *Triphala Udvartana*, on *Athisthaulya*. *Virechana Karma* was conducted by using *El-Vireka*. After *Virechana Karma*, patient was made to follow *Sansarjana Krama* for three consequent days. From fourth day to thirty-third day, the patient was treated with *Mudgadi Kashaya* orally and with *Triphala Udvartana* externally. After *Virechana Karma*, some of the symptoms were partially relieved. After completion of the entire treatment, complete relief was observed in symptoms such as *Kshudra Swasa*, excessive *Abhyavarana Shakthi*, *Ati Pipasa*, *Daurbalya* and *Swedadhikya* and other symptoms were partially relieved. *Virechana Karma* eliminates vitiated *Pitta* and *Vata Dosha*. Hence, *Virechana Karma* is effective in treatment of *Athisthaulya*. Ingredients of *Mudgadi Kashaya* and *Triphala Choorna* pacify vitiated *Vata* and *Kapha Dosha* and reduce *Medo Dhathu*. Hence these treatments are effective in treatment of *Athisthaulya*. It was concluded that conducting *Virechana Karma* using *El-Vireka* followed by internal application of *Mudgadi Kashaya* and external application of *Triphala Udvartana* is beneficial in treatment of *Athisthaulya*.

Key words: *Athisthaulya*, *El-Vireka*, *Mudgadi Kashaya*, Obesity, *Triphala Udvartana*, *Virechana Karma*,

Received: 27.02.2019

Revised: 11.03.2019

Accepted: 29.03.2019



***CORRESPONDING AUTHOR:**

E.R.H.S.S. Ediriweera

Professor, Department of Nidana Chikithsa, Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka.

Email: ayurvedadocsujatha@yahoo.com

Mobile: 0094714447648

Introduction:

Charaka Samhitha, mentions eight types of *Ninditha Purusha*. *Athisthaulya* is one of them. ^[1] *Athisthaulya* can be correlated with obesity which is defined as excessive accumulation of fat in adipose tissues. Obesity, the chronic, highly prevalent abnormal metabolic condition, affects millions of lives. By 2030, 1.12 billion adults will be obese and 2.16 billion will be overweight, worldwide. ^[2]

Virechana is described as one of therapeutic measures in treatment of *Athisthaulya* in Charaka Samhita. ^[3] *El-Vireka* is a purgative used to conduct *Virechana Karma* by Sri Lankan traditional physicians. *Mudgadi Kashaya* is described in Sahasrayoga as *Sthulahara Kashaya*. ^[4] *Triphala Udvartana* is widely practiced in Ayurveda Teaching Hospital, Borella, Sri Lanka in treatment of *Athisthaulya* with effective results. So far, no known scientific study has been conducted to evaluate the effects of these treatments. Therefore, this study was undertaken to evaluate the efficacy of *Virechana Karma* followed by oral administration of *Mudgadi Kashaya* and external application of *Triphala Udvartana* for the management of *Athisthaulya*.

Case Report:

A 30 years old female patient suffering from *Athisthaulya* (obesity) was selected from outdoor patients' department, Ayurvedic

Teaching Hospital, Sri Lanka and admitted to the Indoor patients' Department. The patient was thoroughly examined, anthropometric measurements (Body Mass Index, Waist circumference, Hip circumference and Waist to hip ratio) were taken and subjected to biochemical examinations also, before and after treatment. Signs and symptoms present in the patient were recorded using a specially prepared grading scale. The grading scale of the symptoms is given below.

Grading Scale of symptoms:

- 1) *Chala Sphick / Udara / Sthana*
(Pendulous Buttocks / Abdomen / Breast)
0 – Absence of pendulous movements
1 – Slightly visible pendulous movements in fast movement
2 – Slightly visible pendulous movements in moderate movement
3 – Pendulous movements is visible in slow movement
4 – Pendulous movements is visible even in changing posture
- 2) *Kshudra Swasa* (Dyspnoea)
0 – No Dyspnoea
1 – Dyspnoea on unaccustomed activity (eg:- running)
2 – Dyspnoea on moderate exercises
3 – Dyspnoea on mild exercises (eg:- walking)
4 – Dyspnoea at rest

3) *Jarana Shakthi* (Digestive power)

Jarana Shakthi was assessed based on *Jirna Ahara Lakshana* as given in Madhava Nidana such as *Udgarashuddhi, Uthsaha, Laghuta, Trisha Pravritthi* and *Kshudha Pravritthi*.^[5]

- 0 – Presence of one symptom after 6 hrs
- 1 – Presence of two symptoms after 5 hrs
- 2 – Presence of three symptoms after 4 hrs
- 3 – Presence of four symptoms after 3 hrs
- 4 – Presence of all symptoms after 2 hrs

4) *Abhyavarana Shakthi* (Power of intake food)

- 0 – Taking food in normal quantity 3 times a day
- 1 – Taking food in moderate quantity thrice a day
- 2 – Taking food in excessive quantity thrice a day
- 3 – Taking food in excessive quantity thrice a day & taking snacks in between meals
- 4 – Take frequent meals (more than 3 times & other than snack)

5) *Ati Pipasa* (Excessive thirst)

- 0 – Does not feel excessive thirst
- 1 – Occasionally feel excessive thirst, diminished after drinking water
- 2 – Often feels excessive thirst diminished after drinking water
- 3 – Always feels excessive thirst, diminished after drinking water
- 4 – Always feels unquenchable thirst

6) *Daurbalya* (Power of exercise)

- 0 – Can do routine work
- 1 – Can do moderate exercises without difficulty
- 2 – Can do only mild exercises without difficulty
- 3 – Can do mild exercises with very difficulty
- 4 – Cannot do even mild exercises

7) *Swedadhikya* (Excessive sweating)

- 0 – Sweating after heavy work & fast movements
- 1 – Profuse sweating after moderate work & movements
- 2 – Sweating after little work & movements
- 3 – Profuse sweating after little work & movements
- 4 – Sweating even at rest

8) *Daurgandhya* (Foul smell)

- 0 – Absence of bad smell
- 1 – Occasional bad smell in the body, disappeared after bathing
- 2 – Persistent bad smell limited to closed areas and difficult to suppress with deodorants
- 3 – Persistent bad smell felt from short distance and not suppressed by deodorants
- 4 – Persistent bad smell felt from long distance and even intolerable to the patient himself

9) *Kriya Asamartha* (Weakness)

- 0 – No weakness
- 1 – Occasional weakness
- 2 – Feel weakness after heavy work

- 3 – Feel weakness after minor activity
- 4 – Always feel weakness

The patient was treated as follows: On Day 1, *Virechana Karma* was performed. *Sansarjana Krama* was followed for three consequent days. From Day 4 to Day 33, the patient was treated with 120ml of *Mudgadi Kashaya* twice a day orally and application of 100g of *Triphala* Choorna as *Udvarthana* once a day in the morning around 10 a.m. Total duration of the treatment was 33 days. Effects of the treatment were evaluated on the basis of reduction of symptoms and obesity indices (anthropometric indices). Changes in lipid profile tests were also monitored.

Sansarjana Krama:

Agni (digestive fire) diminishes after *Virechana Karma*. The *Agni* has to be revived through appropriate diet. Ayurveda describes diet and regimen (*Sansarjana Krama*) which should be followed after *Virechana Karma*. Authentic texts advised to follow *Sansarjana Krama* for a period of seven days. In the present study, patient followed *Sansarjana Krama* for only three days as mentioned in Ayurveda Panchakarma Therapy by RH Singh,

Method of preparation of *El-Vireka*:

Thirty grams each of dried fruits of *Terminalia chebula* (Family: Combretaceae; Sinhala name: Aralu) and sugar candy (a preparation of *Saccharum officinarum*; Sinhala name: *Sukiri*) were taken. Fruits of

T. chebula were cleaned, pericarp was collected and powdered, then mixed with powdered sugar candy. A King coconut was cut opened at the top and the lid-like piece kept a side. The mixture was put into the King coconut and the lid closed. Then it was kept in dew, overnight. Following morning it was filtered using a thin cloth and the filtrate was administered internally to the patient as a purgative. This preparation is called *El-Vireka*. Sri Lankan traditional physicians believe that number of filtering will be equal to the number of bouts of bowel motions.

Method of preparation of *Mudgadi Kashaya*:

Mudgadi Kashaya is prepared with *Khadira* (dried stem bark of *Acacia catechu*), *Laja* (parched seeds of *Oryza sativa*) and *Mudga* (seeds of *Vigna radiata*).^[4] In the present study, *Acacia chundra* was used instead of *Acacia catechu*, as it possesses *Guna* and *Karma* similar to *Khadira*, according Sri Lankan traditional medicine.

Twenty grams each of coarse powder of dried stem bark of *Acacia chundra*, *Laja* (parched seeds of *Oryza sativa*) and *Mudga* (seeds of *Vigna radiata*) were taken and mixed with 1920ml of water, and boiled down to 240ml and filtered

Method of preparation of *Triphala Udvarthana*:

Fifty grams of each of pericarps of *T. chebula* and *Terminalia bellirica* (Family:

Combretaceae; Sinhala name: *Bulu*) and seeded fruits of *Phyllanthus emblica* (Family: Phyllanthaceae; Sinhala name: *Nelli*) were taken and powdered finely. This was mixed with warm water and used as *Triphala Udvartana*. This paste was applied upward direction, keeping the patient in seven postures in the following order, namely; Sitting, Supine, Left lateral, Prone, Right lateral, Supine and Sitting position. Total duration of *Udvartana* is 45 minutes. After the *Udvarthana*, patient was allowed to rest for 10 minutes and advised to wash the body with warm water without using soap.

Results:

After completion of *Virechana Karma*, it was observed that partial relief in *Kshudra Swasa*, *Theekshnagni*, *Swedadhikya*, *Ati Pipasa* and increased *Abhyavarana Shakthi*. After completion of entire treatment *Chala Sphick*,

Chala Udara, *Chala Stana*, *Theekshnagni* and *Kriya Asamartha* were partially relieved. A complete relief in *Kshudra Swasa*, Increased *Abhyavarana Shakthi*, *Ati Pipasa*, *Daurbalya* and *Swedadhikya* were observed after completion of entire (Table1).

After completion of entire treatment, there was reduction in weight (10.95%), BMI (10.94%), Hip circumference (9.61%) and waist circumference (7.59%) in the patient. There was 1.32% increase in waste hip ratio (Table 2).

After completion of *Virechana Karma*, reduction in total cholesterol and LDL cholesterol were observed but these values were above normal levels. After completion of entire treatment total cholesterol and LDL cholesterol levels reached normal levels (Table 3)

Table 1: Percentage of relief in Symptoms

Symptoms	Before treatment	After <i>Virechana Karma</i>		After completion of entire treatment	
		Grade	Percentage of relief	Grade	Percentage of relief
<i>Chala Sphick</i>	Grade 4	Grade 4	0%	Grade 2	50%
<i>Chala Udara</i>	Grade 4	Grade 4	0%	Grade 2	50%
<i>Chala stana</i>	Grade 4	Grade 4	0%	Grade 1	75%
<i>Kshudra Swasa</i>	Grade 2	Grade 1	25%	Grade 0	100%
<i>Jarana Shakthi</i>	Grade 2	Grade 1	25%	Grade 1	75%
<i>Abhyavarana Shakthi</i>	Grade 4	Grade 1	75%	Grade 0	100%
<i>Ati Pipasa</i>	Grade 4	Grade 2	50%	Grade 0	100%
<i>Daurbalya</i>	Grade 1	Grade 1	0%	Grade 0	100%
<i>Swedadhikya</i>	Grade 3	Grade 2	25%	Grade 0	100%
<i>Daurgandhya</i>	Grade 0	Grade 0	0%	Grade 0	0%
<i>Kriya Asamartha</i>	Grade 3	Grade 3	0%	Grade 1	75%

Table 2: Changes in Anthropometric indices

Anthropometric indices	Before treatment	After <i>Virechana Karma</i>	After completion of entire treatment	Percentage of Reduction / Increase (After entire treatment)
Height	154 cm	154 cm	154 cm	0%
Weight	73 kg	69 kg	65 kg	10.95% ↓
BMI (kgm ⁻²)	30.8	29.11	27.43	10.94% ↓
Waist Circumference	79 cm	79 cm	73 cm	7.59% ↓
Hip Circumference	104 cm	101 cm	94 cm	9.61% ↓
Waist: Hip ratio	0.759	0.782	0.777	1.32% ↑

Table 3: Changes in Lipid profile

Description	Before treatment	After <i>Virechana Karma</i>	At completion of the entire treatment
Total cholesterol	232.00 mg/dl	223.00 mg/dl	191.00 mg/dl*
HDL cholesterol	48.00 mg/dl	48.00 mg/dl	49.00 mg/dl
LDL cholesterol	169.20 mg/dl	160.30 mg/dl	127.60 mg/dl*
VLDL cholesterol	14.80 mg/dl	14.70 mg/dl	14.40 mg/dl
Triglycerides	74.00 mg/dl	74.00 mg/dl	72.00 mg/dl

Discussion:

Athisthaulya is arisen due to the vitiation of *Vata*, *Kapha Dosha* and *Medo Dhathu*. In *Athisthaulya*, *Virechana Karma* is described as one of the therapeutic measures. It eliminates vitiated *Dosha* from the body.

Ayurveda pharmacodynamic properties of ingredients of *El-Vireka* are given in Table 4. Ingredients of *El-Vireka* have the properties of *Madhura Rasa*, *Snigdha Guna*, *Ushna Veerya*, *Madhura Vipaka* and *Anulomana*. Therefore, it reduces the vitiated *Vata Dosha*. The ingredients of *El-Vireka* possess *Kashaya Rasa*, *Laghu Guna* and *Ushna Veerya*. Due to these properties, *El-vireka* reduces vitiated *Kapha Dosha*.^[6,7,8] As such, *Virechana Karma* using *El-Vireka* is beneficial for management of *Athisthaulya*.

Ayurveda pharmacodynamic properties of ingredients of *Mudgadi Kashaya* are given in Table 5. Ingredients of *Mudgadi Kashaya* possess the properties of *Tikta* and *Kashaya Rasa*, *Laghu* and *Ruksha Guna*, *Katu Vipaka* and *Kaphahara*. Therefore, it reduces vitiated *Kapha Dosha*. Ingredients of *Mudgadi Kashaya* possess *Madhura Rasa*, *Vata Shamaka* and *Tridoshagna* properties. Because of these properties *Mudgadi*

Kashaya reduces vitiated *Vata Dosha*. These ingredients also possess *Medohara* property which reduces vitiated *Medo Dhathu*.^[9,10,11] Hence *Mudgadi Kashaya* is useful in management of *Athisthaulya*.

Ayurveda pharmacodynamic properties of ingredients of *Triphala Choorna* are given in Table 6. Ingredients of *Triphala Choorna* possess the properties such as *Kashaya*, *Katu* and *Tikta Rasa*, *Laghu* and *Ruksha Guna*, *Ushna Veerya*, *Kapha Nashaka* and *Kaphahara*. Thereby, it reduces vitiated *Kapha Dosha*. These ingredients have the properties of *Madhura Rasa*, *Ushna Veerya*, *Madhura Vipaka*, *Tridoshahara*, *Tridosha Shamaka*, and *Anulomana*. Therefore, *Triphala Choorna* reduces vitiated *Vata Dosha*. The ingredients of *Triphala Choorna* also have the property of *Medohara* which helps to reduce vitiated *Medo Dhathu*.^[6,12,13] Therefore, *Udvartana* with *Triphala Choorna* is helpful in management of *Athisthaulya*.

When above facts are taken into account, *El-Vireka*, *Mudgadi Kashaya* and *Triphala Udvartana* can be considered as effective treatment in management of *Athisthaulya*.

Table4: Pharmacodynamic properties of *El-Vireka*

Ingredient	Rasa	Guna	Veerya	Vipaka	Other properties
<i>Terminalia chebula</i>	<i>Kashaya Katu, Tikta, Madhura Amla</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Anulomana Tridosahara</i>
Sugar candy (<i>Saccharum officinarum</i>)	<i>Madhura</i>	<i>Sheeta Sara Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	
King coconut	<i>Madhura</i>	<i>Guru Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	

Table 5: Pharmacodynamic properties of *Mudgadi Kashaya*

Ingredient	Rasa	Guna	Veerya	Vipaka	Other properties
<i>Acacia chundra</i>	<i>Tikta Kashaya</i>	<i>Laghu Ruksha</i>	<i>Sheetha</i>	<i>Katu</i>	<i>Kaphahara Medohara Pitta Shamaka</i>
<i>Vigna radiata</i>	<i>Kashaya Madhura</i>	<i>Ruksha Laghu</i>	<i>Sheetha</i>	<i>Katu</i>	<i>Shleshmaghna Pittaghna</i>
<i>Oryza sativa (Laja)</i>	Not found	<i>Laghu</i>	<i>Sheetha</i>	Not found	<i>Kapha and Pitta Shamaka Medah Chidrah (Relieves obesity)</i>

Table 6: Pharmacodynamic properties of *Triphala Choorna*

Ingredient	Rasa	Guna	Veerya	Vipaka	Other properties
<i>Terminalia chebula</i>	<i>Kashaya Katu, Tikta, Madhura,</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Anulomana Tridosahara</i>

	<i>Amla</i>				
<i>Terminalia bellirica</i>	<i>Kashaya</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosahara, Kapha Nashaka Anulomana</i>
<i>Phyllanthus emblica</i>	<i>Katu, Tikta, Kashaya, Madhura, Amla</i>	<i>Laghu Ruksha Sheetha</i>	<i>Sheetha</i>	<i>Madhura</i>	<i>Medohara Kaphahara, Tridosahara Anulomana Dhathu Ushnahara Pitta Shamana</i>

Conclusion

It is concluded that performing *Virechana Karma* using *El-Vireka* followed by internal administration of *Mudgadi Kashaya* and external application of *Triphala Choorna* is beneficial in treatment of *Athisthaulya* (obesity).

References:

1. Sharma, P.V., Charaka Samhitha, Sutrasthana 21/3, Chaukhamba Orientalia, Varanasi, India, 1986, pp144
2. Kelly, T., Yang, W., Chen, C.S., Reynolds, K. and He, J., Global burden of obesity in 2005 and projection to 2030, International journal of Obesity, 2008, 32(9):1431-1437
3. Sharma, P.V., Charaka Samhitha, Sutrasthana Sutrasthana 23 /8

Chaukhamba Orientalia, Varanasi, India, 1986, pp 154 -155

4. Nishteswar, K. and Vidyanath, R., Sahasrayogam, 3rd edition, Chowkhamba press: Chowkhamba Sanskrit Series Office, 2011, pp 401
5. Murthy K.R.S., Madhava Nidanam (Roga Vinishchaya) 6/24, Chaukhamba Orientalia, Varanasi, India, 1986, pp32
6. Sharma, P.V., Haritaki, Dravyaguna-Vijnana Vol. 11, Chaukhamba Bharati Academy, Varanasi, India, 1991, pp 755
7. Sharma, P.V., Ikshu, Dravyaguna-Vijnana Vol. 11, Chaukhamba Bharati Academy, Varanasi, India, 1991, pp 639

8. Sharma, P.V., Narikela, Dravyaguna-Vijnana Vol. 11, Chaukambha Bharati Academy, Varanasi, India, 1991, pp 118
9. Department of Ayurveda, Ratkihiya, Ayurveda Aushadha Samgraha Vol. 1 part 111, Department of Ayurveda, Sri Lanka, 1985, pp 299
10. Department of Ayurveda, Mun Eta, Ayurveda Aushadha Samgraha Vol. 1 part 111, Department of Ayurveda, Sri Lanka, 1985, pp 288
11. Murthy, S., Ashtanga Samgraha of Vagbhata Vol 1, Sutrasthana 7/56-2;57-1, Chaukambha Orientalia, Varanasi, India, 1998, pp125
12. Sharma, PV, Vibhitaki, Dravyaguna-Vijnana Vol. 11, Chaukambha Bharati Academy, Varanasi, India, 1991, pp 240
13. Sharma, PV, Amalaki, Dravyaguna-Vijnana Vol. 11, Chaukambha Bharati Academy, Varanasi, India, 1991, pp 759

Guarantor: Corresponding author is guarantor of this article and its contents.

Conflict of interest: Author declares that there is no conflict of interest.

How to cite this article:

Chandrasiri A.M.S.L., Ediriweera E.R.H.S.S., Effect of El-Vireka, Mudgadi Kashaya and Triphala Udvartana in Athisthaulya (Obesity) - A case study. Int. J AYUSH CaRe. 2019; 3(1): 32-41.