

CASE STUDY

Management of *Sthaulya*-Associated Hypercholesterolemia through *Apatarpan Chikitsa Siddhanta* with special reference to *Madanphaladi Kwath* along with *Pathya-Apathya*. – A Single Case Study

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ABSTRACT

The *Ahar* (diet) or *Vihar* (behavior regimen) which provides nourishment to the body is called *Santarpana* and when *Santarpana* is taken in excess, it will result in *Santarpana-janya vyadhi* means diseases originating due to over nourishment. As per Ayurveda, *Sthaulya* is considered one of the *Santharpana-janya Vyadhi* and it can be correlated to Obesity in modern science. Obesity increases cardiovascular risk through risk factors such as increased serum total cholesterol, high LDL cholesterol, low HDL cholesterol, high triglycerides, etc. The raised cholesterol is called Hypercholesterolemia when serum total cholesterol of 200 mg/dl or more. Obesity itself involves higher levels of adipose tissue (body fat) that can increase the risk of hypercholesterolemia. *Apatarpan* therapy which includes 5 types of *Shodhan* and 7 types of *Shamanaropi chikitsa* has been mentioned for the management of the *sthaulya*. This is a single case study on the effective management of *sthaulya*-associated Hypercholesterolemia. Treatment was planned as administering *Madanphaladi Kwath* orally 20 ml twice in *Abhakta kala* (at 8 am and 4 pm) for 90 days along with *Pathya-apathya* as *Shamanaropi Apatarpan chikitsa*. After completion of treatment, the patient was found to have significant relief in signs and symptoms of *sthaulya* and reduced 6.5 kg of body weight, and raised cholesterol levels were also found to be decreased. So, *Madanphaladi Kwath* and *Pathya-apathya* were selected as *Apatarpan* therapy for the present study to assess its *Apatarpan* effect in the management of *Sthaulya*-associated Hypercholesterolemia.

Key Words *Sthaulya*, *Hypercholesterolemia*, *Madanphaladi Kwath*, *Apatarpan*, *Chikitsa Siddhanta*

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INTRODUCTION

Dietary items that are *Prithvi* and *Apa Mahabhuta* dominant lead to *Santarpan* like

excessive consumption of a diet with properties like *Snigdha*, *Madhur*, *Guru*, *Picchil*, and diet consists of *Navanna*, *Nav Madya*, *Mansa*

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especially *Aanup*, *dugdha vikrutis*, *Paishtik* that is more carbohydrates and *Vihar* (behavioral regimen) like *Diwaswap*, *Shayyasan*, *Avyayam* etc. which denote towards a sedentary lifestyle¹. *Sthaulya* is primarily *vyadhi* of *dushya Medo dhatu* in which there is *Vikrut Vruddhi* (Abnormal increase) of *Medodhatu* hence also called *Medorog*. Based on causes as well as disease conditions, *Sthaulya* can be correlated with obesity in Modern science.

Obesity is a condition characterized by excessive body fat accumulation and is often expressed in terms of BMI (body mass index calculated as Weight in Kg divided by height in meters squares- kg/m^2). It is closely associated with having high cholesterol levels, including a diet high in saturated fats and salty foods.

In obesity, there is increased fat tissue in our body means a higher amount of free fatty acids gets delivered to the Liver. The Liver produces all the cholesterol that the body needs, and the rest of the cholesterol is dietary means the person obtains it from food containing a high saturated fats diet, meat, processed food, and dairy products. This results in increased cholesterol levels in the bloodstream. In this way, Obesity increases the risk of Heart disease, Stroke, and Atherosclerosis through high cholesterol levels². The prevalence of Hypercholesterolemia is found in 13.9% of the population in Maharashtra and it is a major risk factor for many life-threatening disorders like atherosclerotic cardio and cerebrovascular disorders (ASCVD). High cholesterol is a silent condition as it has no

symptoms. You do not know of it unless test for it³.

Now research interest has focused on *Shamana-roopi Apatarpan chikitsa* for their potential role in *Sthaulya* (obesity) related Hypercholesterolemia. A patient with classical signs and symptoms of *Sthaulya* with raised cholesterol levels was selected from the O.P.D. of *Kayachikitsa* of *Sane Guruji Arogya Kendra*, *Ayurvedic Hospital*, Pune. The patient was thoroughly questioned and examined based on the proforma.

AIM To assess the *Apatarpan* effect of *Madanphaladi kwath* and *Pathya-Apathya* in the management of *Sthaulya*-associated Hypercholesterolemia.

OBJECTIVES

- 1) To study the effect of *Madanphaladi Kwath* and *Pathya-Apathya* on signs and symptoms of *Sthaulya*
- 2) To study the effect of *Madanphaladi Kwath* and *Pathya-Apathya* on body weight, and BMI.
- 3) To study the effect of *Madanphaladi kwath* and *Pathya-Apathya* on raised levels of Cholesterol.

CASE REPORT

A case report as follows-

A case of 30 years old female patient with a sedentary job work came to *Sane Guruji Arogya Kendra* in *Kayachikitsa* OPD with complaints

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like gradually weight gain in the past 2 years, *Swedadhikya* (excessive perspiration), *Atikshudha* (excessive appetite), *Atipipasa* (excessive thirst) *Daurbalya* (weakness), *Nidradhikya*, *Katishoola* (backache) were found with objective parameters of weight 74 kg, height- 154 cm. and raised Total Serum Cholesterol levels 236 mg/dl on laboratory investigations. So, based on weight, BMI, and classical symptomatology she was diagnosed as *Sthaulya* (obesity class 1) associated Hypercholesterolemia. She was not suffering from any other underlying systemic pathology or severe hypertension, endocrine disorders, Cushing's Syndrome, any major disease, or other associated complications. The family history of the patient was negative for obesity and the Patient was not allergic to any drug or substance. Shamanaroppi Apatarpan Chikitsa was given with special reference to Madanphaladi Kwath along with Pathya-Apathya for 90 days and an assessment was done before and after treatment.

Ashtavidha Pariksha:

1. *Nadi* (pulse): *Kapha Pradhan*
2. *Mala* (stool): *Vibandha*
3. *Mutra* (urine): *Pitavarniya*.
4. *Jeevha* (tounge): *Saam*.
5. *Shabda* (speech): Normal.
6. *Sparsha* (skin): *Anushnasheeta*
7. *Druka* (eyes) = *Prakruta*
8. *Akruti*= *Sthula*

On Examination:

Pulse: 82/min.

BP: 130/80 mm/Hg

Weight: 74 kg

Height: 154 cm

BMI: 31.2

Serum total cholesterol: 236 mg/dl

Personal History:

Ahar: Mixed

Agni Bala: *Tikshnagni*

Prakruti: *Kapha-pitta*

Hetu / Nidana:

1. Ahar:

Oily food- samosa and French fries, *Madhura Rasatisevan* like Cakes, Pastries, pizza, doughnuts, *Mamsahar*: Meat, cheese cream, ice cream, cold coffee, yogurt, Fried rice, pasta, bread.

2. Vihar:

Avyayam (Lack of physical exercise), *AC* (*Shita-vayu sevana*), *Ati-asana*, *Asana Sukha* (sedentary/Luxurious sitting)

TREATMENT GIVEN

Drug: Madanphaladi kwath:

मदनं त्रिफला मुस्ता सप्ताहारिष्टवत्सकम्।

सपाठारग्वधं पीतमतिबृंहण रोगजित्॥

-अ.सं.सू.२४/३७

Madanphala, *Triphala*, *Musta*, *Saptparna*, *Arishta* (*Nimb*), *Vatsak* (*Kutaj*), *Patha*, and *Aragvadha* all 10 drugs in equal quantities prepared in the form of *Kwath* if taken internally a good remedy for *Santarpanjanya Sthaulya*.

Drug Manufacturing: SOP⁴ :

Madanphaladi kwath was prepared according to *Sharangdhar Samhita*, with Ingredients proportion: Water: 16 Parts, Herbs: 1 Part,

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Reduction: 1/8th Part in the department of *Rasashastra* and *Bhaishjya Kalpana* of our Institute. The *Kwath* thus obtained was allowed to cool and then filtered. Preservatives (Methyl Paraben, Propylparaben, Sodium benzoate) were added.

Administration of *Madanphaladi kwath*:

Dose- *Granthokta Matra* of 1 *Pal* (In 2 divided doses i.e 20 ml BD)

Table 1 *Pathya Ahar*

1. <i>Shuka Dhanya</i> (Cereal grain)	<i>Purana Shali, Yava, Priyangu, Laja, Nivara, Koradushaka, Jurna, Prashatika, Kanguni</i>
2. <i>Shami Dhanya</i> (Pulses)	<i>Mudga</i> (green gram), <i>Kulatha</i> (horse gram), <i>Chanaka, Masura</i> (lentil), <i>Adhaki</i> (pigeon pea)
3. <i>Shaka Varga</i> (Vegetables)	<i>Patola, Patrashaka, Shigru, Vrutaka, Vastuka, Trapusha, Vartaka, Evaruka, Adraka, Mulaka, Surasa.</i>
4. <i>Phala Varga</i> (Fruits)	<i>Kapittha, Jambu, Aamlki, Ela, Bibhitaki, Haritaki, Maricha, Pippali, Erand Karkati, Ankola, Narang, Bilvaphala.</i>
5. <i>Drava Varga</i>	<i>Madhu</i> (Honey), <i>Takra, Ushnajala, Tila and Sarshapa Tail, Asava, Arishta, Surasava.</i>

Table 2 *Pathya-Apathya Vihar*

Sr.No.	<i>Pathya</i>	<i>Apathya</i>
1.	<i>Shram</i> (Exercise)	<i>Avyayam</i> (Lack of physical exercise)
2.	<i>Jagarana</i> (Awakening in the night)	<i>Diwaswapa</i> (Day sleep)
3.	<i>Nitya-bhramna</i> (Continuous walking)	<i>Avyavaya</i> (Lack of sexual life)
4.	<i>Vyavaya</i> (Indulgence in sex)	<i>Asana Sukha</i> (sedentary/Luxurious sitting)

Apathya Ahara: (should be avoided)

1. *Snigdha ahar*: oily food, packaged foods, processed food, and restaurant fried foods like French fries.
2. *Madhura rasapradhan ahar*: sugar, Cakes, cookies, Pastries, Chocolates.
3. *Picchila ahar*: pizza, burger, doughnuts,
4. *Mamsahar*: Meat especially red meat, grilled food.
5. *Dugdh-vikruti*: Dairy products especially cheese cream, ice cream, and yogurt.
6. *Paishtik ahar*: rice, wheat, pasta, breads.
7. *Ati Ashana*- Overeating

Anupana- *Konshnajal* (Lukewarm water)

Sevana kaal – *Abhakta kal* (at 8 am and at 4 pm)

Duration- 3 months (90 Days)

Along with *Madanphaladi Kwath* orally, following *Pathyapathya* (diet and regimen) was advised. *Pathya Ahar* as shown in Table No. 01 and *Pathya-Apathya Vihar* as shown in Table No. 02.

8. *Viruddha ahar*: Avoid incompatible combinations of food-

- Milk with fish, meat, curd, and sour fruits, bread containing yeast, cherries, and yogurt.
- Yogurt with milk, sour fruits, melons, hot drinks, meat, fish, mangos, and with cheese.

OBSERVATIONS AND RESULTS

Gradations of Subjective parameters ⁵ like *Atikshudha, Atipipasa, Nidradhikya, Swedadhikya, and Daurbalya* are shown in Table No. 03, 04, 05, 06, and Table No. 07 respectively.

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Table 3 Gradation of *Atikshudha*

Grade	Description
0	Feeling of hunger after 6 hours.
1	Feeling of hunger 5 to 6 hours after full meal.
2	Feeling of hunger 4 hours after full meal.
3	Irritable desire of hunger 3 to 4 hours after full meal.
4	Irritable desire of hunger within 3 hours after full meal.

Table 4 Gradation of *Atipipasa*

Grade	Description
0	Normal thirst
1	1 liter excess intake of water
2	1 to 2 liters excess intake of water
3	2 to 3 liters excess intake of water
4	More than 3 liters excess intake of water

Table 5 Gradation of *Nidradhikya*

Grade	Description
0	Normal sleep 6-7 hours preferably at night
1	Sleep upto 8 hours in a day with <i>Angagaurava</i>
2	Sleep upto 8 hours in a day with <i>Angagaurava</i>

and *Jrimbh*

3	Sleep upto 10 hours in a day with <i>Tandra</i>
4	Sleep more than 10 hours in a day with <i>Tandra</i> and <i>Klama</i>

Table 6 Gradation of *Swedadhikya*

Grade	Description
0	Sweating after heavy work and fast movement or in hot season
1	Profuse sweating after moderate work and movement
2	Sweating after mild work and movement
3	Profuse sweating after little work and movement
4	Sweating even at rest or in cold season

Table 7 Gradation of *Daurbalya*

Grade	Description
0	Never in daily routine
1	Sometimes after Moderate exercise
2	Sometimes after Mild exercise
3	Frequently after Mild exercise
4	Always after Mild exercise

Assessment of Subjective parameters (signs and symptoms of *Sthaulya*) before and after treatment as shown in Table 8.

Table 8 Assessment of Subjective parameters

Sr. No.	Signs and symptoms	On Day 0 (Before Treatment)	On Day 30 (During Treatment)	On Day 60 (During Treatment)	On Day 90 (After Treatment)
1.	<i>Atikshudha</i>	3	2	1	1
2.	<i>Atipipasa</i>	3	2	2	1
3.	<i>Nidradhikya</i>	2	1	1	1
4.	<i>Swedadhikya</i>	2	2	1	0
5.	<i>Daurbalya</i>	3	2	2	1

The assessment of Objective parameters before and after treatment is shown in Table No. 09.

Table 9 Objective parameters before and after treatment

	Before Treatment (Day 0)	After Treatment (Day 90)
Body Weight (kg)	74	67.5
BMI (kg/m ²)	31.2	28.4
Serum total cholesterol (mg/dl)	236	194

DISCUSSION

Santarpan janya Sthaulya- Vyadhi Swabhava and Samprapti:

Acharya Charaka has quoted *Sthaulya* under eight varieties of impediments which are referred to as *Nindita Purusha*⁶.

In *Santarpan janya Sthaulya*, there is *Medo-dhatu ativruddhi* due to excessive consumption of *Snigdha-madhuradi atisevana hetus*. This causes overload for digestion on *Jatharagni* resulting in the formation of *Ama-pradhan Ahara rasa* which is *atiguru, atimadhura, and Snigdha* in nature that nourish *Meda dhatu* selectively and cause the excessive formation of *medo dhatu*

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according to “*Khale-kapota nyay*” (rule of selectivity i.e., the different *dhatu*s, pick up the required nourishment from the common nutrient pool -*Ahara-rasa*) and there is no formation of other *dhatu* rather than *apachita meda dhatu* ⁷.

Medo-dhatvagni - a type of metabolic component situated at the level of *Medodhatu* is responsible for the building of the *Medodhatu* which gets reduced in *Sthaulya*. This *Medodhatvagnimandya* leads to the formation of *apachit meda dhatu*. This *Apachita Medo-dhatu* with more *guru*, *snigdha*, and *madhura* properties gets accumulated in *Srotasas* and leads to *srotorodha* (Obstruction) of other *srotasas* in the body and hampered the proper formation of further *dhatu*s by blocking the *srotasas* leading to *Vata prakopa* in *koshtha*. *Jatharagni* gets influenced due to *Vayu* in *Koshtha* causing *Tikshnagni* which digests the food at a faster rate, further leading to *kshudha vriddhi*. This cycle continues to form more and more *Medo-dhatu vriddhi* leading to *Sthaulya vyadhi* ⁸.

Samprapti ghataka:

The factors that invariably take part in the manifestation of a disease-

Dosha: *Kapha- Kledaka, Pitta- Pachak, Vata-Samana, Vyana*

Dushya: *Rasa, Meda Dhatu*

Agni: *Jatharagni, Parthiva and Apya Bhutagni, Rasa and Meda Dhatvagni*

Srotas: *Rasavaha Srotas, Medovaha Srotas,*

Table 10 Types of *Apatarpan*

Shodhan	Shaman
1. <i>Niruha</i>	1. <i>Pachan</i> (to digest partly converted matter like <i>Aam</i>)
2. <i>Vamana</i>	2. <i>Deepana</i> (to kindle the gastric fire)

Srotodusti type: *Sanga, Margavarodha (Ch.Su. 21/3-4), Aamtah (Su.Su. 15/32)*

Adhishthana: Whole Body Particularly *Vapavahana and Medodhara Kala*

Udbhavasthana: *Aamshaya*

Aam: *Jatharagni Mandhyajanit Aam, Dhatvagni Mandhyajanit Aam*

Vyaktisthana: *Sarvanga*

Chikitsa (Treatment) of Sthaulya:

Acharya Charaka advises using *Apatarpan* therapy mainly in *Santarpanjanya Vyadhi* and *Sthaulya* is one among them.

सन्तर्पणकृतैर्दोषैः स्थौल्यं मुक्त्वा विमुच्यते।

उक्तं सन्तर्पणोत्थानामपतर्पणमौषधम्॥

-च. सू. २३/२६

गुरु चातर्पणं चेष्टं स्थूलानां कर्शनं प्रति।

-च. सू. २१/२०

The therapy, medicine, drug, or lifestyle changes that bring about lightness and thinness to the body are called *Apatarpan*. As *Apatarpana* and *Langhana* appear as synonyms, *यत् किञ्चिल्लाघवकरं देहे तल्लङ्घनं स्मृतम्* // - (*charak sutrasthan.22/9*).

In short, all those substances, attributes, and functions, which result in the depletion of body constituents substantially, qualitatively, or functionally are called *Apatarpana*.

Types of *Apatarpan* according to *Acharya Vagbhata* ⁹ are as shown in Table no.10

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3. Kayavireka	3. <i>Kshut-nigraha</i> (to withhold hunger)
4. Shirovireka	4. <i>Trut-nigraha</i> (to withhold thirst)
5. Asravistruti (Raktamokshan)	5. <i>Vyayama</i> (exercise)
	6. <i>Atapa</i> (exposure to the sun)
	7. <i>Maruta</i> (exposure to the wind)

Qualities of *Apatarpana (Langhana)* dravyas:

लघूष्णीतीक्ष्णविशदं रूक्षं सूक्ष्मं खरं सरम्,
कठिनं चैव यद्द्रव्यं प्रायस्तल्लङ्घनं स्मृतम्,

-ch.su.22/12

Properties of Ingredients of *Madanphaladi*

Kwath¹⁰: As shown in table no. 11, 12, 13, 14, 15.

Table 11 Properties of *Madanphal* and *Amalaki*

	<i>Madanphal</i>	<i>Amakali</i>
Latin Name	<i>Randia spinosa</i>	<i>Emblica officinalis</i>
Family	<i>Rubiaceae</i>	<i>Euphorbiaceae</i>
Rasa	<i>Kashaya, madhura, tikta, Katu</i>	<i>Pancharasa (lavanavarjit) amlapradhana</i>
Veerya	<i>Ushna</i>	<i>Sheeta</i>
Vipaka	<i>Katu</i>	<i>Madhura</i>
Guna:	<i>Ruksha, Laghu</i>	<i>Ruksha, Guru</i>
Karma	<i>Lekhan, Kaphavataghna</i>	<i>Dipan, Hrudya, Kapha-pitta shaman</i>
Prayojyang	<i>Phala</i>	<i>Phala</i>

Table 12 Properties of *Bibhitaka* and *Haritaki*

	<i>Bibhitaka</i>	<i>Haritaki</i>
Latin Name	<i>Terminalia bellirica</i>	<i>Terminalia chebula</i>
Family	<i>Combretaceae</i>	<i>Combretaceae</i>
Rasa	<i>Kashaya</i>	<i>Pancharasa (lavanavarjit) Kashaya pradhana</i>
Veerya	<i>Ushna</i>	<i>Ushna</i>
Vipaka	<i>Madhura</i>	<i>Madhura</i>
Guna:	<i>Ruksha, Laghu</i>	<i>Ruksha, Laghu, Sara</i>
Karma	Bhedan, Chedan-Shleshmahar	<i>Dipan, Pachan, Hrudya, Yogvahi, Kaphaghna</i>
Prayojyang	<i>Phala</i>	<i>Phala</i>

Table 13 Properties of *Musta* and *Saptaparna*

	<i>Musta</i>	<i>Saptaparna</i>
Latin Name	<i>Cyperus rotundus</i>	<i>Alstonia scholaris</i>
Family	<i>Cyperaceae</i>	<i>Apocynaceae</i>
Rasa	<i>Tikta, katu, kashaya</i>	<i>Tikta-kashaya</i>
Veerya	<i>Sheeta</i>	<i>Ushna</i>
Vipaka	<i>Katu</i>	<i>Katu</i>
Guna:	<i>Ruksha, Laghu</i>	<i>Laghu, Sara</i>
Karma	Lekhan, Dipan, Pachan, Kaphaghna	<i>Raktashodhak, Hrudya, Dipan, Kaphavataghna</i>
Prayojyang	<i>Kanda</i>	<i>Tvak</i>

Table 14 Properties of *Nimb* and *Vatsak*

	<i>Nimb</i>	<i>Vatsak (Kutaj)</i>
Latin Name	<i>Azadirachta indica</i>	<i>Holarrhena antidysenterica</i>
Family	<i>Meliaceae</i>	<i>Apocynaceae</i>
Rasa	<i>Tikta, kashaya</i>	<i>Tikta-kashaya</i>
Veerya	<i>Sheeta</i>	<i>Sheeta</i>
Vipaka	<i>Katu</i>	<i>Katu</i>
Guna:	<i>Laghu</i>	<i>Ruksha, Laghu</i>
Karma	Bhedan, Hrudya	Hrudrog-hara (ch.k.5/6), Aamhar-Upshoshan, Dipan

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<i>Prayojyang</i>	<i>Pushpa, Patra, Tvak, Beeja</i>	<i>Tvak, Beeja (Indrayava)</i>
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Table 15 Properties of *Patha* and *Aargvadha*

	<i>Patha</i>	<i>Aargvadha</i>
Latin Name	<i>Cissampelos pareira</i>	<i>Cassia fistula</i>
Family	<i>Menispermaceae</i>	<i>Leguminosae (Caesalpinioideae)</i>
Rasa	<i>Tikta</i>	<i>Madhura</i>
Veerya	<i>Ushna</i>	<i>Sheeta</i>
Vipaka	<i>Katu</i>	<i>Madhura</i>
Guna:	<i>Laghu, Tikshna</i>	<i>Guru, Mrudu</i>
Karma	<i>Dipan, Pachan, Hrudrog-hara, Raktashodhak, Trodoshashghna</i>	<i>Raktashodhak, Hrudrog-hara</i>
Prayojyang	<i>Mula, Bhaumik Kanda</i>	<i>Phalamajja, Mulatvak, Pushpa, Patra</i>

1. *Apatarpak effect of Madanphaladi kwatha:*

Madanphaladi kwath is indicated in *Santarpan Janya vyadhi*.

Rasa: *Tikta, Katu, Kashaya rasa* is opposite to *Kapha, Ama,* and *Medodhatu*. Contents of *Madanphaladi kwatha* like *Guduchi, musta, Nimb, Vatsak, Patha,* and *Saptaparna* having *Tikta* as *Pradhan Rasa* which has dominancy of the *Vayu* and *Akash Mahabhoota* helps to remove the obstruction of *Meda, Kapha & Kleda* from the body and shows *Apatarpak* effect by clearing the *Srotarodh* which is the main part of *Samprapti* of *Sthaulya*.

Veerya: *Ushna veerya* of *Madanphaladi Kwath dravyas* is efficacious in *Sthaulya* because it not only causes *Pachan* by digesting *Ama* and *Apakva Meda*, but it also has the additional property of *Deepan* of *Bhutagni* and *Dhatvagni* and help the liquefaction of morbid *Dosha* by of its *Agneya* property.

Guna: Most of the *Dravyas* of *Madanphaladi Kwath* have *Sukshma, Ruksha, Tikshna,* and *Laghu guna* (properties) which tend towards the *Apatarpan* and cause *Kaphahara* and *Medohara*

prabhava. *Sukshma Guna* allows the drug to pass into *Sukshma-srotasas* (micro-channels) by its '*Anupravana bhava*' (special property to enter into the micro-channels) that helps to remove the morbid *dosha* from micro-channels and brings them to *Koshtha* for expulsion. *Ruksha Guna Shoshan* of Morbid *Doshas* and thus reduces *Kapha* and *Meda* as its opposite to their *Snigdha Guna*.

Karma: *Amakali, Haritaki, Nimb,* and *Saptaparna* are the drugs in *Madanphaladi Kwath* which are *Hridya* (Cardioprotective). *Argvadha, Patha,* and *Vatsak* are the drugs useful in *Hidroga* hence they reduce the risk of ASCVD (Atherosclerotic cardio and cerebrovascular disorders) by reducing *Medodhatu vridhhi* in other words the weight of the patient and thereby reducing raised serum cholesterol levels. *Vatsak (Kutaj)* is effective as *Aamahara* by *Upshoshana* of *Ama* in *Srotasas* due to its *Tikta* rasa and *Ruksha Guna*.

2. *Apatarpak effect of Pathya-Apathya:*

Pathya-Apathya includes the *Dos* and *Don'ts* of diet and behavior regimen. *Pathya ahar* like *Madhu* possesses *Guru* and *Ruksha* properties,

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hence it is ideal for the management of *Sthaulya* and *Vihar* like *Vyayam* (exercise), *Jagran* advised providing less nourishment thus leading to the depletion of *Meda*. This normalizes the fat metabolism and helps in achieving lightness in the body.

Nidan means cause or causative factors of the disease and *Parivarjan* means removal or avoidance. Avoidance of the causative factors of disease is called “*Nidan Parivarjan*” and this not only prevents the disease prognosis but also supports the disease treatment.

CONCLUSION

- *Santarpan janya sthaulya* is a condition mainly caused due to improper dietary habits and lack of physical activity and is mostly associated with raised cholesterol levels because *Medovriddhi* in *Sthaulya* (excessive accumulation of body fat) itself leads the body to produce excessive amounts of cholesterol results in Hypercholesterolemia.
- *Apatarpan Chikitsa Siddhanta* can be applied for the management of *Santarpan janya Sthaulya* associated with Hypercholesterolemia.
- *Madanphaladi Kwath* along with *Pathya-Apathya* showed significant improvement in signs and symptoms of *Sthaulya* and remarkable changes in reducing weight by 6.5 kg, BMI, and raised cholesterol levels thus showed the *Apatarpak* effect in the management of *Santarpan-Janya Sthaulya* associated Hypercholesterolemia.

Conflict of Interest: No

Source of Support: Nil

Consent of Patient: Taken

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