AYURVEDIC APPROACH IN THE MANAGEMNET OF MEDO VAHA SROTO DUSHTI W.S.R TO HYPERLIPIDEMIA: A CASE STUDY.

Introduction

Hyperlipoproteinemia is characterized by hypercholesterolemia, isolated hypertriglyceridemia, or both.[1] Primarycause of hyperlipoproteinemia are genetic disorders. Diabetes mellitus, obesity, ethanol consumption, oral contraceptives, glucocorticoids, renal disease, hepatic disease, and hypothyroidism can cause secondary hyperlipoproteinemias or worsen underlying hyperlipoproteinemic states.[2] Hyperlipoproteinemia usually has no noticeable symptoms and is often detected during routine examination or evaluation for atherosclerotic cardiovascular disease. However, in some cases it may present with features such as xanthomas, xanthelasma of the eyelids, chest pain, abdominal pain, enlarged liver and spleen, elevated cholesterol or triglyceride levels, increased risk of heart attack, higher rates of obesity and glucose intolerance, pimple-like skin lesions, atheromatous plaques in arteries, and arcus senilis.[3]

There is no separate description or chapter about hyperlipidemia in the *Ayurveda* classics. This might be due to the fact that it is a metabolic disorder and a contributor to other diseases. But we can correlate it with *MedovahaSrotoDushti.* According to *Acharya Charaka*, a person not doing physical exercise, having day time sleep, eating meat in excess, drinking excess alcohol leads to*MedovahaSrotoDushti*.[4]The symptoms of *MedoVahaSrotoDushti* are similar to symptoms of *AshtaNindaniyaVyadhi* and *Puravrupa*of*Prameha*.[5]In *AshtaNindaniyaVyadhi*, specifically thesymptoms of*Atisthaulya*such as*ChalaSphika, Udara, Stana, AyathaUpachaya*(Abnormal growth of body), *Anutsaha*(Lack of Enthusiasm), *AyushoHrasa*(Shortening of the Life Span) can be correlated withhyperlipidemia.[6]According to *Acharya Sushruta*, increase of *Meda* produces *Snighdata* in the *Sharira*, increase of abdomen and flanks, cough, dyspnea, bad smell etc.[7] According to *Acharya Vaghbhata*, *AlpaCheshta* (fatigue), *Shwasa* (dyspnoea), *SphikaStanaUdaraLambanama* (pendulous, growth of buttocks, breast and abdomen) occurs due to deposition of excess *MedaDhatu*.[8]*Ruksha, Ushna&TeekshnaBasti*has been suggested by *Acharya Charaka* for the treatment of *SantarpanajanyaRoga.* [9] *AcharyaSushruta*specifically mentioned*LekhaniyaBasti* for the treatment of *Medovriddhi*.[10]So, in light of above references from classical texts, *LekhaniyaBasti*along with tablet Lipistab was selected for the present case study for the management of Hyperlipidemia.

Case Report:

A 47-year-old female patient, non-smoker and non-alcoholic, visited OPDof *Panchakarma*with chiefcomplaint ofgeneral weakness, laziness, increasedsweating,weight gain associated with difficulty in walking and pain in right knee joint since 1.5 years.

History of Past Illness- Hypothyroidism since 5 years, No history of DM, HTN

Treatment History - Patient is taking tablet Thyroxine 150 mcg, since 5 years

Personal History

- Appetite - Normal

- Diet - Mixed, 3 meals/day
- Bowel habits- Constipation on & off
- Sleep - Increased in frequency
- Urine - Normal

General examination

- Blood pressure -130/90 mmHg
- Pulse rate - 70/min
- Temperature - 98.3 degrees
- Respiration rate - 18/min
- Pallor - Absent
- Cyanosis - Absent
- Edema - Absent
- Lymphadenopathy - Absent

DashvidhaPariksha

- *Prakriti – Vata-Kaphaj*
- *Vikriti-Tridoshaj*
- *Sara -Madhyama*
- *Samhanana-Madhyama*
- *Pramana- Madhyama*
- *Satmya- Sarvarasa*
- *Satva- Avara*
- *Ahara Shakti - Madhyama*
- *Vyayama Shakti - Avara*
- *Vaya- Yuva*

Diagnostic criteria

Diagnosis was made on the basis of Complete Lipid Profile.

Other blood investigations:

Thyroid Function Test– within normal limits

Uric Acid- 6.2 mg/dL

ASSESSMENT CRITERIA

Patient was assessed on subjective and objective parameters before treatment and at the end of treatment.

Table No. 1.Subjective parameter:

***Alasya/Anutsaha*(Laziness)**	**Score**
Doing work satisfactorily with proper vigor in time	0
Doing work satisfactorily with late initiation	1

Doing work unsatisfactorily under mental strain and taking time	2
Not beginning any work on his own obligation and doing little work	3
Refuses to take the initiative and not want to function even after pressure	4
***Daurbalya*(General weakness)**	**Score**
Can do regular exercise	0
Can do moderate exercise without trouble	1
Can only perform mild exercise	2
Can do mild exercise with very difficult	3
Cannot do even mild exercise	4
***Daurgandhya*(Bad odor from the body)**	**Score**
Absence of bad odor	0
Occasional bad smell from the body that is removed after Bathing	1
Persistent bad smell restricted to near places that is impossible to mask by deodorant	2
Persistent bad smell sensed from long distance that is not suppressed by deodorant	3
Persistent bad smell felt from long distance that is also intolerable to the patient himself	4
***Svedhaabaada*(Excess Sweating)**	**Score**
Sweating after hard work and rapid movement or in hot weather	0
Profuse sweating after moderate work and movement	1
Sweating after little work and movement	2
Profuse sweating after some work and movement	3
Sweating even at rest or in cold weather	4

Objective parameter:

- Beforeand after treatment effect on complete lipid profile and body weight will be evaluated.

Consent:

Consent was obtained from the patient prior to the treatment.

Treatment protocol

The patient was administered with *LekhniyaBasti*in *Kala* regimen along with oral administration of tablet Lipistab. The total duration of treatment was 40 days. The therapeutic response and progress were monitored through follow-up assessments conducted on the 20^{th}, 40^{th} and 60^{th} day after initiation of the treatment.

Table No. 2. Treatment Plan

Sr. No.	Type of treatment	Medications	Duration	Period

1.	Oral Medication	*ChitrakadiVati* 2 Tab BD *Anupana*- Luke warm water	3 days	Day 1- 3rd
2.	*Panchakarma*Procedure	*AnuvasanaBasti* with *MurchhitaTilaTaila,* Dose- 60 ml, post meal. *LekhniyaBasti*, Dose- 450 ml, empty stomach in the morning in *Kala* Regimen.	16 days	Day 4th – 19th
3.	Oral Medication	Tablet Lipistab Dose: 2 Tab BD *Anupana*- Luke warm water	40 days	Day 4th –43rd(16 days along with *Basti* and 24 days after *Basti*)

Contents of *LekhniyaBasti*[11]*:*

1. *Madhu*(Honey)
2. *SaindhavaLavan*(Rock Salt)
3. *Sneha - MurchhitaTilaTaila*
4. *Kalka - Silajatu, ShudhKasisa, ShudhTuttha, Hingu*
5. *Kwatha – TriphalaKwath*
6. *PrakshepaDravya - Yavakshara,Gomutra*

Contents of Tablet Lipistab:

1. *Arjuna*
2. *Shunthi*
3. *Peepali*
4. *Pushkarmoola*
5. *Lasuna*
6. *Guggul*

Preparation of *LekhaniyaBasti*

1. First of all, the *Kwath*was prepared for *LekhaniyaBasti*. For making the *Kwath*a coarse powder of thoroughly cleaned and dried *Triphala*were taken in a quantity of 60 gm, which were added to 960 ml of water and boiled until the decoction reduced to 240 ml. Then the *Kwath*were sieved in a clean container to remove the solid portion.
2. Then 60 gm of honey were taken in a dry mortar and pestle to which 5 grams of*SaindhavaLavan*was added and mixed properly to make a homogenous mixture.
3. Next 90 ml of lukewarm *MurchhitaTilaTaila*were added to the mixture and mixed thoroughly.
4. All the *Kalka Dravyas*were taken to make a wet ground paste then added in the mixture.
5. After this, warm *Kwath*were added to the mixture and churned properly.

6. At the end *Gomutra* were added to obtain a homogenous mixture for *Basti*. Then this homogeneous mixture was sieved into a container and were transferred to a *BastiPutaka*for administration

Murchhana*of*TilaTaila*[12]*:

For *AnuvsanaBasti, TilaTailaMurchhna*was done with these *Kalka Dravya: Manjishtha, Triphala, Haridra, Musta, Vatt-Jata, Nakula, Kevra-Phool.*

*TilaTaila*were taken in a dry steel pan, and was heated until it became free from froth. The flame was turned off and once the temperature of the oil reduced a little, the paste of all the *Kalka Dravya*s i.e. *Manjistha*etc were added into the oil. Once the froth settled down a measured quantity of water was added to the oil, then the pan was replaced on to the flame and heated until *SamyakPakaLakshans*were noted. Then the prepared oil was filtered through a cloth sieve, and was stored in a dry vessel.

Drug Source:

Tablet Lipistabis a Patent *Yoga* of DAVPharmacy, Mahatma Hans Raj Marg, G.t Road, Jalandhar-8 (PB.) India. [Manufacturing License No. 67(Ay.) Pb.]

Results:

During the follow-up period, the patient demonstrated steady improvement in overall clinical symptoms and in Laboratory examination.

Table No. 3 Assessment score for subjective parameters

Sr. No.	Symptoms	Day 0	Day 20	Day 40	Day 60	% Improvement
1.	*Alasya/Anutsaha*	3	1	1	0	100 %
2.	*Daurbalya*	2	1	0	0	100%
3.	*Daurgandhya*	0	0	0	0	0%
4.	*Svedhaabaada*	3	3	2	2	33.3%
5.	**Total Score**	**8**	**5**	**3**	**2**	**75%**

Table No. 4 Assessment score for objective parameters

Sr. No.	Lipid Profile	Normal range	B.T.	A.T.	% Improvement
1.	**Serum Cholesterol**	Adult: Desirable <200 mg/dL Borderline: 200 - 239 mg/dL High: >240	264 mg/dL	198 mg/dL	25%
2.	**Triglycerides**	Normal: <150 Borderline High: 150-190 High: 200-499	256 mg/dL	170 mg/dL	33.6%
3.	**VLDL**	5-40 mg/dL	51.2 mg/dL	34 mg/dL	33.6%

4.	**LDL**	<100 Optimal	162.8 mg/dL	122 mg/dL	25.1%
5.	**HDL**	35 – 80 mg/dL	50 mg/dL	42 mg/dL	-

Table No. 5 Comparison in body weight

	Before treatment	**After treatment**
Body weight	**96 kg**	**94 kg**

Discussion:

The clinical assessment demonstrates marked symptomatic improvement, with *Alasya/Anutsaha* and *Daurbalya* showing complete relief (100%) by Day 60, while *Svedhaabaada* exhibited moderate improvement (33.3%).The total symptom score reduced from 8 to 2, indicating an overall improvement of 75%, reflecting significant improvement in the patient's general condition. The lipid profile also demonstrated considerable improvement, with reductions in serum cholesterol (25%), triglycerides (33.6%), VLDL (33.6%), and LDL (25.1%), bringing values closer to normal limits. However, HDL showed a slight decrease, which is not desirable. Additionally, a reduction in body weight from 96 kg to 94 kg further supports the beneficial effect of the intervention on metabolic parameters.

LekhaniyaBasti is specifically a *TikshnaShodhanaBasti* and it is indicated in *BahudoshaAvastha*which includes *Medovriddhi*. *Kapha* and *Vata* are the main *Doshas* involve in the pathogenesis of Disease.*VataPrakopa* is due to *Margavrodha* by *DushtaKapha* and *Meda*. *LekhaniyaBasti* acts by reducing excess*Meda* and clearing *Srotoavrodha*, helps in improving circulation and normalizing *Vata* movement. Its *Laghu*, *Tikshna*, and *Ushna* properties promote *Deepana–Pachana*, thereby enhancing *Agni*, digesting *Ama*, and correcting *Medo-dhatvagniMandya*. *LekhaniyaBasti* has *Kashaya Rasa* dominance, followed by *Katu Rasa* and *Tikta Rasa*.*Kashaya Rasa*have *KaphaShamaka, KledaSoshan* and *Ruksha* properties. *Tikta Rasa* performs *Lekhana*action and have*Meda, Vasa, Sweda, SleshmaUpsoshak* properties. *Katu Rasa* is also having *Sneha, Sweda, KledaNashak, Lekhana*and*KaphaShamaka* properties.*Katu, Tikta, Kashaya Rasa* by reducing increased *Kleda*, they cause wasting of all the *Dhatus*.Thus help in *Lekhana Karma* of all the *Dhatus*, andresulted in the reduction of laziness/lack of enthusiasm *(Alasya/ Utsahahani),* excess sweating *(Swedadhikya)* and body odor *(Daurgandhya).TilaTaila* used for *AnuvasanaBasti* is *Balya, Vrishya* and *Vatahara*, it balances the *TeekshanaGuna* of *LekhaniyaBasti* along with providing *Bala* to the patient.

The contents of Tablet Lipistab further support the action of *Basti*. *Arjuna* provides cardioprotective and lipid-lowering effects; *Shunthi*and *Pippali*act as potent *Deepana–Pachana* drugs that improve digestion and reduce *Ama*; *Pushkarmoola* helps in improving circulation and relieving *Kapha-Vata* imbalance; *Lasuna* has hypolipidemic and *Amapachaka* properties; and

*Guggul*have *Lekhaniya*and*Medohara* action, helps in reducing lipid levels. Together, these drugs synergistically enhance metabolic activity, reduce hyperlipidemiaand alleviate associated symptoms.

Conclusion:

The incidence of hyperlipidemiahas markedly increased over the past few decades in developing countries, becoming a major health concern, particularly among younger individuals due to their diet and life style. The present case study highlights the role of *LekhniyaBasti* in the treatment of hyperlipidemia. The predominance of *Kashaya*, *Tikta* and *Katu Rasa* in *BastiDravya* provides *Kapha-shamaka*, *Lekhana*, *Kleda-shoshana* and *Meda*-reducing actions, leading to improvement in clinical symptoms. The ingredients of Tablet Lipistab complements the action of *Basti* by improving blood circulation and reducing lipid levels through their cardioprotective, *Deepana–Pachana*, *Lekhaniya* and *Medohara* properties.Together, they address both the root cause and manifestations of hyperlipidemia,offering a holistic,safe and effective therapeutic strategy.Modern medical science, though helpful in improving the dyslipidaemia, has notable limitations due to the adverse effects. This study signifies the clinical relevance of *Ayurvedic*treatment in the management of hyperlipidaemia and encourages the further studies with a larger sample size and longer follow up period.

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