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## Ayurveda and Integrated Medical Sciences

**CASE REPORT** 

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### Effect of Kuti Sweda on Dyslipidemia: A Case Report

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#### ABSTRACT

**Introduction:** Dyslipidemia is one the major condition to be concerned, it is the most potent modifiable risk factors for CVD, it does not manifest disease in a single day, but acts as a silent killer. This article discusses a female patient known case of dyslipidemia for 1 year, seen at OPD of *Swasthavritta* and *Yoga*, National institute of Ayurveda, Jaipur. **Main clinical findings:** Her chief complaints were increasing central obesity, Breathlessness on walking or climbing stairs since 5-6 months. **Diagnosis:** In this case, the subject was having central obesity, shortness of breath on walking, talking on phone for long time or climbing stairs and lab investigations showed disturbed lipid profile, so she was diagnosed with *Medovridhi*. **Intervention:** After appropriate analysis *Swedana* in the form of *Kuti Sweda* (Cabin Sudation) was given for 15 mins, 5 days in a week continued for 1 month. **Outcomes:** Before procedure her total cholesterol was 250.3 mg/dl, serum LDL was 191 mg/dl, Serum HDL was 42 mg/dl, Total cholesterol/HDL ratio was 6 %, HDL/LDL ratio was 4.5 % and after 1 month of procedures the values were 138.6 mg/dl, 68.7 mg/dl, 44 mg/dl, 3.1%, 1.6% respectively. Beneficiary improvement in subjective parameters were also noted. **Conclusions:** There was significant change in all symptoms and lipid profile, so, it can be concluded that *Kuti Swedana* is quite effective in managing dyslipidemia.

**Key words:** Kutisweda, dyslipidemia, CVD, Swedana, Cholesterol.

#### **INTRODUCTION**

Dyslipidaemia is a condition which shows the deviation of lipid levels in body from normal range, it may include high levels of cholesterol, triglycerides, LDL, while low Levels of HDL.<sup>[1]</sup>

That's why dyslipidaemia term is more preferred than hyperlipidaemia. It is a major modifiable risk factor for CVDs, atherosclerosis etc. Its incidence is increasing

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Ayurveda Organization, Vijayapur, Karnataka (Regd) under the license CC-by-NC-SA day by day according to national health portal of India the prevalence of Dyslipidaemia is around 25-30% in urban areas while 15-20% in rural areas. <sup>[2]</sup> According to an article Global epidemiology of Dyslipidaemias - the prevalence of dyslipidaemias is around 31.2%, it was at 15<sup>th</sup> position in 1990 as a leading risk factor for death now it is at 8<sup>th</sup> position in 2019. <sup>[3]</sup>

Its global burden is continuously increasing over past 30 years. It may be due to more inclination towards sedentary behaviour, more consumptions of saturated fats in the form of junk foods, stress, late night sleeps, less duration of sleep, day time sleeping. Disturbance in lipid profile is not diagnosed early as it doesn't cause any severe symptoms initially. It is mostly ignored by most of the individuals, unless they gain excessive weight or face a severe CVD. Mainly two types of dyslipidaemias are seen, primary dyslipidaemia due to familial pattern, secondary dyslipidaemia due to sedentary lifestyle, hypothyroidism, PCOS, Cushing's syndrome etc, this type can be easily treated. [4]

**ISSN: 2456-3110 CASE REPORT** May 2022

Major factors responsible for dyslipidaemias are obesity, sedentary lifestyle, no exercise, alcohol consumption, tobacco, junk foods etc. It is mostly diagnosed under routine investigations, it can be easily modified just by adopting some lifestyle changes, daily exercise and shifting towards healthy meals containing MUFA and PUFA instead of saturated fats. Medicines like Statins are used for dyslipidaemias<sup>[5]</sup> which are not very effective if other factors are not controlled.

According to Ayurvedic texts disturbance in lipid profile can be roughly correlated with Santarpanjanya Vyadhi, [6] its management includes Ulekhana, Virechana, Raktmokshana, Vyayama, Upawasa, Dhoompana and Swedana [7] etc. So, for managing dyslipidaemia Swedana procedure can be opted. Swedana improves metabolism of our body, enhances Agni, removes accumulated excessive wastes in our body by its Ushna, Tikshna, Sara, Sukshma and Ruksha Gunas. This study was done to see the effect of Swedana in managing disturbed lipid profile.

#### **CASE REPORT**

A 32 years old female patient, married, Hindu, Guard by profession, living in Urban area came to OPD No. 21 of *Swasthavritta* and *Yoga* Department, National Institute of Ayurveda, Jaipur on 5<sup>th</sup> January 2022.

#### **Chief complaints**

- Shortness of breath after climbing 1 floor stairs and talking while walking - 6 months
- Central obesity 2 years
- Stress 5 years

#### **H/O** present illness

According to patient she was fit before 5 years then, due to some family issue she was grasped by stress, gradually she started gaining weight around thighs, buttocks and around waist from last 2 years. From last 5-6 months she started noticing shortness of breath while doing activities like stair climbing, talking while walking. So, she came to NIA hospital at *Swasthavritta* OPD for weight management.

She was not having any history of hypertension, diabetes, asthma, thyroid disorders, TB or any other illness.

#### **Personal history**

- Appetite normal
- Sleep disturbed due to stress
- Bowel irregular
- Bladder clear

#### **Dietary history**

Patient loved eating *Madhura Rasa*, oily foods, used to have extra ghee with roti or daal.

#### **General Examination**

- Built average
- Height 167 cms
- Weight -72 kgs
- BMI 25.8 kg/m<sup>2</sup>
- Pulse rate 80/min
- BP 126/70
- Pallor, icterus, clubbing, cyanosis Absent
- Tongue coated

#### **Systemic Examination**

- CNS well oriented, alert, spoke properly
- CVS S<sub>1</sub> S<sub>2</sub> audible, murmur not found
- Respiratory No major findings, B/L air entry equal

#### Dashvidha Pareeksha

- Prakriti Kapha Pradhana Vata
- Samhanan, Pramana, Satmya, Satva Madhyama
- Aahar Shakti, Abhyavaran Shakti Pravara
- Vyayaam Shakti Avara
- Vaya Madhyam

#### **Investigations**

- 1. Serum cholesterol 250.3 mg/dl
- 2. Serum triglycerides 86.3 mg/dl

**ISSN: 2456-3110 CASE REPORT** May 2022

- 3. Serum HDL 42 mg/dl
- 4. Serum LDL 191mg/dl
- 5. Serum VLDL 17.3 mg/dl
- 6. TC/HDL ratio 6
- 7. LDL/HDL ratio 4.5
- 8. RBS 98 mg/dl

#### **Treatment Plan**

After ruling out other factors like Hypertension, TB, Asthma, Thyroid disorders, Diabetes, Anemia and other cardiac problems it was found that only lipid profile was disturbed so, *Swedana* karma in the form of cabin sudation (*Kuti Sweda*) was chosen as treatment modality.

#### **Details of intervention**

Kuti Sweda was given early in the morning empty stomach after oil application on whole body and having 1-2 glasses of water. Head was covered with wet cotton cloth and eyes closed. Total duration of Swedana was 15 mins, for 5 days in a week and was continued for 30 days.

Vitals like BP, Heart rate, respiratory rate was assessed before and after the procedure. Cabin was pre-heated to 35° Celsius temperature, after the procedure she was allowed to stay in a packed room for 15 mins.

#### **Criteria for assessment**

Results were assessed on the basis of Total Serum Cholesterol, LDL, HDL, TC/HDL ratio, LDL/HDL ratio, weight and BMI.

#### **RESULTS**

The therapy started on 7<sup>th</sup> Jan 2022 and ended on 15<sup>th</sup> Feb 2022 (procedure was on halt from 30<sup>th</sup> June - 4<sup>th</sup> Feb due to menstruation). It was seen before procedure her total cholesterol was 250.3 mg/dl, serum LDL was 191 mg/dl, Serum HDL was 42 mg/dl, Total cholesterol/HDL ratio was 6%, HDL/LDL ratio was 4.5% and after 1 month of procedures the values were 138.6 mg/dl, 68.7 mg/dl, 44 mg/dl, 3.1%, 1.6% respectively, significant healthy improvement was

seen in lipid levels. Weight was reduced from 74 kgs to 72. 2 kgs and BMI from 25.8 to 25.1 kg/m<sup>2</sup> [Table 1]

Improvement in breathlessness and lethargic condition was seen, she was feeling more energetic and active then before. She found *Swedana* relaxed her mind, now she is having good sleep.

Table 1: Showing results in various parameters.

S N	Parameters	ВТ	AT	Diff.	% Chang e
1.	Total cholesterol	250.3 gm/dl	138.6 gm/dl	111.7	44.62 %
2.	Serum HDL	42 gm/dl	44 gm/dl	2	4.76 %
3.	Serum LDL	191 gm/dl	68.7 gm/dl	122.2	63.9%
4.	Total cholesterol/HD L	6 %	3.1 %	2.9	48.3 %
5.	LDL/HDL	4.5 %	1.6 %	2.9	64.4 %
6.	вмі	25.8 Kg/m²	25.1 Kg/m²	0.7	2.71%

#### **DISCUSSION**

Dyslipidemia can lead to a very fatal condition, it occurs due to disturbed fat metabolism or *Medovriddhi*, there are multiple reasons behind this, most prime are sedentary lifestyle, no exercise, excessive accumulation of fat, more saturated fat intake and stress, but these factors can be easily modified.

We require a treatment modality that alleviates Agni, detoxify body and increases rate of metabolism. *Swedana* is a well-known Ayurvedic therapy more famous as '*Purva Karma*' to *Panchkarma* therapy. But it can be used as an independent therapy as it is mentioned under *Shad- Upkarmas*. <sup>[8]</sup> It is a procedure which relieves stiffness, coldness, heaviness in body and induces perspiration. <sup>[9]</sup> This induced perspiration causes release of more toxins out of body, dissolves accumulated body fats. It is usually given after *Snehana* 

**ISSN: 2456-3110 CASE REPORT** May 2022

(Oleation)<sup>[10]</sup> that causes easy spilling of *Doshas* out of the body, it is having dual effect of relaxation as well as detoxification.

Swedana possess many properties like Ushnata, Tikshnata, Rukshta, Sthirata, Sarata, Snigdhta, Dravta, Sukshmata, Guruta etc.[11] by the help of above properties it produces various benefits in body like Stambhaghna (relieves stiffness), Gauravahna (relieves heaviness), Shitghna (relieves coldness) and Sweda Karkavta (Sweat production).[12] In our body metabolism is regulated by Agni, when it is disturbed, it causes Ama production which leads to Shrotorodha (obstruction of channels), this Shrotorodha hampers Dhatu formation process. When fat is not metabolized properly it gets accumulated (Medovriddhi), this excessive Meda covers Agni which hampers the formation of Asthi, Majja and Sukra Dhatu which may lead to symptoms like lethargy, shortness of breath and weakness. Swedana by its Ushna, Sukshma and Tikshna Guna enters the microchannels, stimulates sweat glands to boost sweat production and increase metabolism to enhance Agni.[13] Sweating facilitates more calorie burn leading to more consumption of accumulated fats, as Sweda is Mala of Meda Dhatu<sup>[14]</sup> this means burning of Meda produces Sweda, this clearly explains the working of Swedana in reducing lipid levels, when continued for 1 month it increases metabolic rate, detoxifies body and leads to healthy formation of all Doshas ultimately correcting Dyslipidemia.

The results obtained in this study shows that *Swedana* is quite effective in correcting dyslipidemia.

#### **CONCLUSION**

It is clear from the above study that conditions like dyslipidemias which require lifestyle and dietary modifications can be corrected by *Swedana* like procedures and this procedure is safe, effective and less time consuming.

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