

EFFECT OF ABHYANGA ON LIPID PROFILE: AN OPEN CLINICAL TRIAL ON HEALTHY INDIVIDUALS

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Abstract

Abhyanga has been considered as an important part of the external Snehana. It produces relaxation of soft tissues and relieves the pain. Abhyanga causes relaxation to mind, useful in the treatment in Aches, Hypertension, helpful in Bipolar disorders, and pain management. The main aim of the study is to assess the role of Abhyanga on Lipid profile of healthy individuals. Tila taila obtained from the seeds of *Sesamum indicum* Linn. was used for abhyanga. Fifteen healthy volunteers were selected irrespective of Religion, age and sex. The Routine Hematological, Biochemical tests were done before and after 7 days course of abhyanga in seven positions. The results showed clinically insignificant reductions in Lipid profile. In this study an attempt was made to observe the efficacy of abhyanga on lipid profile of healthy individuals. But the result showed abhyanga is not at all having a significant intervention in the lipid profile. Findings indicate that Abhyanga is not having an active intervention in Lipid profile. As the sample size is very small, further studies are required to find the exact action of Abhyanga on the healthy individual's lipid profile.

Keywords: Abhyanga; Massage; Lipid profile.

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INTRODUCTION

According to Ayurveda, Abhyanga is one of the bahiparimarjana chikitsa (external oleation therapy). It can be used both for the preventive, Rejuvenating as well as curative purposes. Abhyanga is rubbing of oil over the body. In Ayurvedic treatise, Abhyanga has been mentioned as the part of Dinacharya,^[1] in vatavyadhis, in manifestations like Sula (Pain), Sthambha (Restricted or loss of movement of part of the body) etc. Abhyanga provides trans-dermal absorption of sneha dravyas with or without medicine, as skin is the largest organ of the body. Modern pharmacology reveals that the absorption through the skin can be enhanced by suspending the drug in a lipid media like oil media and rubbing same on the skin.^[2] This will influence the soft tissue^[3] of the body and this will bring relaxation of soft tissues and relieves the pain. It can stimulate and strengthen the lymphatic system and remove bodily toxins like lysosines generated in the muscles and make them relaxation of the muscular tissue. Other benefits include increasing circulation to the affected part, reduces the muscular tension.^[4] Abhyanga in layman language as Massage or Massage therapy (MT) is one of the most common form of complementary and alternative medicine therapy (CAM). As per American Massage Therapy Association (AMTA), Massage is a manual soft tissue manipulation like holding, causing movement, and / or applying pressure to the body.^[5] Research reveals that Massage helps in decreasing heart rate and blood pressure (BP).^{[6][7][8][9][10][11]} Bi polar disorders like anxiety,^[12] Dementia,^[13] stress,^{[14][15]} It helps preterm infants to improve in bodyweight.^[16] It also useful in lowering intensity of pain,^{[17][18][19]} especially treating backache,^[20] It also plays a significant role in cancer associated symptoms like nausea, pain.^{[21][22][23]} Richards states that back massage improves the sleep pattern in critically ill patients.^[24] So in this study an attempt has been made to assess the role of

Abhyanga on Lipid profile of healthy individuals.

MATERIALS AND METHODS

Literature Search

A literature search was conducted by using the keywords Abhyanga, massage, etc. by using search engines like the MEDLINE, LexisNexis, CINAHL, Research gate, Wiley online, Ovid SP and Science databases. In the review, 100 papers were considered.

Materials

Tila Taila obtained from the seed of *Sesamum indicum* Linn. (Pedaliaceae) is the most convenient for the purpose of Snehana (oleation).

Sample size

Fifteen healthy volunteers were selected randomly, irrespective of their age, sex, religion, etc. History of all the volunteers is taken in detail. General and systematic examination was done by using both Ayurvedic and Modern methods. The volunteers are examined by using Routine Hematological, Biochemical tests. They are free from medication and no medication was advised during the course of the Abhyanga.

Method

Informed consent obtained from all the volunteers and Abhyanga done by a qualified therapist for the period of 7 days. Abhyanga was done with lukewarm Tila Taila (Sesame oil) in the direction of hair and by pressure stroke. The Abhyanga was done in the following seven positions like Sitting position, lying on back (Supine position), Left lateral lying position, Again supine position, Right lateral lying position, Supine position and Sitting position.^[25]

Table 1: Biochemical test variables before course of abhyanga therapy

Sl. No.	Variable	N	SD	SEM
1	Cholesterol	15	30.80584	7.95403
2	Triglycerides	15	54.39433	14.04455
3	HDL	15	13.21615	3.41240
4	LDL	15	28.43819	7.34271
5	Total Cholesterol	15	0.88203	0.22774

Table 2: Biochemical test variables after course of abhyanga therapy

Sl. No.	Variable	N	SD	SEM
1	Cholesterol	15	29.06315	7.50407
2	Triglycerides	15	37.10962	9.58166
3	HDL	15	63.40850	16.37200
4	LDL	15	24.89810	6.42866
5	Total Cholesterol	15	0.90877	0.23464

Table 3: Biochemical test Variables before and after course of abhyanga therapy

Parameters (Before-After)	Mean	Std. Deviation	Paired Differences		t	df	Significant (2-tailed)	
			Std. Error Mean	95% Confidence Interval of the Difference				
				Lower				Upper
Cholesterol	6.33333	13.70957	3.53980	-1.25877	13.92544	1.789	14	0.095
Triglycerides	14.66667	41.72643	10.77372	-8.44066	37.77400	1.361	14	0.195
HDL	-17.067	65.35121	16.87361	-53.25696	19.12363	-1.01	14	0.329
LDL	2.93333	13.29826	3.43360	-4.43100	10.29767	0.854	14	0.407
Total Cholesterol	0.07933	0.53573	0.13832	-0.21734	0.37601	0.574	14	0.575

Criteria for Assessment

Routine Lipid profile investigations were carried out before and after treatment.

Statistical analysis

Statistical analysis was done by using SPSS software using version 15. Statistical significance in lipid profile before and after a seven day course of Abhyanga was analyzed by using paired t tests.

RESULTS

Testing hypothesis - Null hypothesis

Abhyanga doesn't alter lipid profiles in healthy individuals.

Alternate hypothesis

Abhyanga alters lipid profile in healthy individuals.

No influence of the Abhyanga on subjective variables in the main or Null Hypothesis found in this study deserve concern. The data obtained is analyzed by using SPSS (Statistical Package for the Social Sciences) software and it is found that there are no significant differences between physiological parameters before and after Abhyanga was found. The Lipid profile analysis before and after the treatment was showed insignificant result at the level of $p < 0.05$ level. (Table 1, 2 and 3)

DISCUSSION

Caraka in his treatise Charaka Samhita says that the substance which causes Snehana (unctuousness), Kledata (fluidity), Mraduta (softness) and moistness in the body is Snehana karma (oleation therapy).^[26] This is mainly done with substances like Tila Taila (Sesame oil) and Ghrta (Cow ghee). Till date most of the clinical research on abhyanga is mainly focused on relaxation of the patient as well as its influence on psychological. But since last decade efforts have been made to evaluate the clinical efficacy of the abhyanga.

It is observed that abhyanga is useful in decreasing heart rate and BP, hence in this study an effort has been made to understand the efficacy of the Abhyanga on lipid profile in healthy individuals. After going through various Ayurvedic classical and contemporary texts, it was found that abhyanga has been indicated in many diseases as a line of treatment.^[27] The selected parameters as well as interventions seem to be ineffective, but as a non-invasive procedure not resulted in any adverse event in the volunteers and further advanced tools required for investigation to evaluate the efficacy of the abhyanga on Lipid profile.

CONCLUSION

Findings indicate that Abhyanga is not having an active intervention in Lipid profile and this study has its own limitations, like the sample size is very small, so further studies are required to reveal the exact action of Abhyanga on the healthy individual's lipid profile.

Further analysis is also required according to the Ayurvedic treaties and on its principles like Dosha, prakruthi etc. These findings are also important for scientists to design any future studies with proper study design.

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