

A CLINICAL STUDY ON EFFECT OF RED LENTIL (*MASUR*) LEPA ON COMPLEXION ENHANCEMENT OR EFFECT OF RED LENTIL (*MASUR*) LEPA ON COMPLEXION ENHANCEMENT

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ABSTRACT

Bahiparimarjan Chikitsa is meant for external application. It has also preventive and curative aspects. In *Ayurveda*, skin is considered as external route of drug administration and has equal importance as that of other routes. Many preparations in different forms are available in *Ayurved* classics, which are used topically in variety of diseases. It includes *Abhyang*, *Lepa*, *Parishek*, *Udvartan* etc. Among this scholar has focused on *Lepa Chikitsa* for research work. This *Chikitsa* has given significant importance in *Samhitas*. References of *Lepas* are scattered in *Brihatrayi*. Scholar has clinically assessed the efficacy of Red Lentil Face Pack on complexion from *Ashtang Hridayam*¹.

Keywords: *Lepa*, Red Lentil Face Pack, Complexion, *Varnya*, Tanning

INTRODUCTION

Skin is considered as one of the route of drug administration and has precise importance as that of other routes. Treatment done through external route like skin is termed as *Bahiparimarjana Chikitsa*. Many preparations in different forms are available in *Ayurveda* classics, which are to be used topically in variety of diseases. Therapies, which are implemented externally, include *Abhyang*, *Lepa*, *Parishek*, *Udvartana* etc. Among these scholars has fo-

cused on *Lepa Chikitsa* for research work. *Lepa Chikitsa* has given significant importance in *Samhita* with preventive and curative aspects. *Sushrutacharya* has given vivid description of *Lepa* in *Vrana Chikitsa Adhyaya*.

It is stated that pouring water over a burning house extinguishes fire very soon, in the same manner aggravated *Doshas* in *Vrana* will be subsided by application of *Lepas*². He has also mentioned *Alepanam* as first *Chikitsa* of *Vrana*.

Charakacharya has devoted a chapter purely for external application in *Aragvadhya Adhyaya*. Many formulations of *Lepas* are described in *Samhita* in preventive & curative aspects. E.g. *Varnyakar* (*Lepa* enhancing skin complexion), *Keshya* (*Lepa* for hair nourishment), *Khalitya-Palitya Nashak* (*Lepa* effective in hair fall or graying hair) etc *Lepas* are useful in preventive aspect. Even some seasonal face packs are also prescribed by *Vagbhatacharya* to prevent skin from climatic changes. *Lepas* are also recommended to cure diseases along with *Antaparimarjan Chikitsa* (Internal Medication). e.g. *Lepas* are effective in *Kushtha*, *Visarpa*, *Shoola*, *Shotha* etc. The *Lepas* contain combination of multiple herbs mixed in specific ratio. The combination is the outcome of profound knowledge of herbs mentioned by *Acharyas* that should be understood.

Now a day, cosmetic awareness is increasing and people use many cosmetic products to enhance beauty of skin. Fast, stressful life, irregular diet habits and insufficient sleep, exposure to pollution etc are creating many skin problems such as skin tanning, pigmentation and dullness. The mixture of the powder of roasted Red Lentils & Milk is a *Varnya Lepa* from *Ashtanga Hridaya*.²

The current study was undertaken with an aim to evaluate the role of roasted Red Lentils & Milk *Lepa* in *Varnya karma*.

Aim: To review *Lepa Chikitsa* from *Brihatrayi* and case study of Red lentil face pack.

Objectives –

1. To compile and review the literature of the *Lepa* from *Brihatrayi*.
2. To classify the compiled references of *Lepa*.

3. To interpret the probable action of medium of *Lepa* and its ingredients.
4. To assess efficacy of roasted *Masur* powder and milk *Lepa* (powder of roasted Red lentils mixed with milk) in enhancement of complexion.

Material and Methods

- 40 female candidates with tanning
- Mixture of powder of roasted red lentils and cow milk.
- Case record form and written consent was taken.
- Complexion before treatment was noted with the help of fairness strip. Fairness strip was used based on Fitzpatrick scale.
- Candidates were asked to apply *Lepa* once in the morning with thickness of one fourth *Angul* for the period of one month.
- Follow up was taken in three segments.
First -On 15th day from commencement of treatment,
Second- On 30th day,
Third- On 15th day from completion of treatment.
- Change in complexion was noted at each follow up with fairness strip.

Design of study:

- The study was carried out in a single group of 40 individuals to evaluate the efficacy of Red lentil face pack. A primary Case record form was prepared. Consent form was prepared.
- The raw material was collected from local Vendor. Red Lentil was first identified and authenticated from authority at Bhide Lab Pune, Maharashtra. Red Lentil is finely powdered first. *Lepa* is freshly prepared with Cow milk every day. Candidates are

asked to wash the face when *Lepa* get dry with tap water. No restriction of *Hetu Sevana* was advised during the study. Use of cosmetic products was restricted during the study.

Inclusion criteria –

- Age group between 18- 40years
- 40 female individuals having normal, tan or dull skin.

Exclusion criteria –

- Individuals with skin discoloration due to any illness
- Individuals suffering with acne, vitiligo, hyper pigmentation and other skin disorders.
- Male individuals.

Assessment criteria:

Objective criteria – Fitzpatrick Scale

The Fitzpatrick scale remains a recognized tool for dermatological research into human skin pigmentation. The following list shows the six categories of Fitzpatrick scale in relation to the 36 categories of the older Von Luschan scale³

Explanation for skin types

Type I – light, pale white. Never tans but always burns.

Type II – white .generally burns, tans with difficulty

Type III – white to olive, sometimes mild burn, gradually tans to olive.

Type IV – Olive, light brown. Burns minimally. Tans to mild or moderate brown.

Type V- Brown skin. Rarely burns. Tans darkly

Type VI – Dark brown or black. Never burns, always tans darkly.

Figure 1



Figure 2

Von Luschan scale -

	1	10			19	28	
	2	11			20	29	
	3	12			21	30	
	4	13			22	31	
	5	14			23	32	
	6	15			24	33	
	7	16			25	34	
	8	17			26	35	
	9	18			27	36	

Subjective criteria

Dryness –This parameter was assessed on following parameters.

- Mild dry (felt by touching)
- Moderate dry(Stretching of skin that person feels)
- Severe dry (Visible dryness, Hardness)

Oiliness - This parameter was assessed on following parameters

- Mild oiliness (feels by touching, no need to wash face frequently)
- Moderate oiliness (Visible oiliness, need frequent wash 3-4 times daily)
- Severe oiliness (Formation of acne, need to wash face more than 4times)

Improvement was assessed on following subjective parameters

- Complexion
- Skin softness, smoothness

Drug Review



- *Masur* – *Lens culinaris* / *Lens esculenta*
- Family – Legume
- Classification – *Shimbi Varga*
- Classical Name – *Mangalyaka, Masura, Mangalya, Masurika*
- Part used – Seed
- *Rasa* – *Kashaya, Madhura*
- *Vipaka* – *Katu*
- *Veerya* - *Sheeta*
- *Guna* – *Laghu, Ruksha*
- Action – *Grahi, Kapha – Pitta - Rakta Shamaka, Jwara Nashaka, Vatakara*
- ***Ksheera*** -
- *Gurvadi Guna* present in the milk like *Snigdha Manda Sheeta Mrudu Shlakshna Picchila* are responsible for *Varnya Karma*. Milk is *Rasayana* that is why useful to enhance Complexion of the skin. *Snigdha Guna* reduces dryness of the skin. *Manda*

Guna is *Mando Yatrakara*: it is responsible for graceful aging and reduces premature wrinkles. *Mrudu Shlakshna Guna* is useful to improve smoothness of the skin.

Mode of action of Red Lentil Face pack

- *Masur* is mentioned as *Varnya* in the text. *Masur* is *Sheeta Veerya* effective to pacify the vitiated *Piita* within the *Rakta Dhatu* resulting into the *Twaka Prasadana Karma*. *Masur* is *Kashaya Rasapradhana*, which works as *Pittashamak, Kleda Shoshaka* and purifies the *Rakta* leading to *Varnya Karma*. *Ruksha Guna* absorbs *Kleda* within skin, clears the *Twakagata Kapha* accumulation. *Masur* is *Kaphaghna, Kledaghna* and *Srotoshodhan* due to *Katu Vipaka*⁴.
- This Red Lentil milk combination is stated to be effective as *Varnyakara*, cures *Vyanga, Lanchana* diseases. This combination works

on *Twakagata Rakta Dushti* works as *Rakta Prasadana* and *Twaka Prasadana*. That's why useful on dullness, tanning, black patches. Such effects were observed and analyzed during the study⁵.

OBSERVATIONS AND RESULTS:

All patients included in the study were divided into two age groups. Maximum i.e.80% of the subjects were below 30yrs 20% were above 30yrs. Maximum no. of patients i.e. 60% were unmarried while 40% were married. Dominant *Rasa* wise - Maximum no. patients i.e. 90% preferred *Katu Rasa*, 77.5% patient preferred *Madhura Rasa* while 67.5% of patients pre-

ferred *Amla* and *Lavana Rasa*. Maximum no. patients i.e. 95% had H/O *Viruddhashana* & 90% had H/O *Vidahi* food intake. *Ratri Jagarana* was common among 87.5% of subjects. *Vegadharana* was present in 62.5%of subjects. Maximum exposure to sunrays and pollution was found in 1-2 hrs between 10 to 12 o'clock. *Chinta* was present in majority of subjects' i.e.72.5%. Skin type II and type III were more i.e.45 &47.5 respectively. Normal skin was present in 12.5% dry skin was in 37.5% subjects. Oily skin was 50%. Oily skin was more prominent. Amongst 40 subjects *VataPittaja Prakruti* was more dominant.

Table 1:

	N	Minimum	Maximum	Mean	Std. Deviation	Paired T	p
OBJ BEFORE	40	17	29	22.48	2.819	-	-
OBJ AFTER	40	17	28	21.40	2.827	11.879	0.000
OBJ FOLLOW	40	17	29	21.85	2.940	7.319	0.000
Valid N (list wise)	40						

On objective parameter where Fitzpatrick fairness scale was used shows results as After 30th day score reduced by 1 was 28 among 40, subject's shows improvement in complexion 7 subjects shows improvement by 2 no. 5 subjects were maintained on same score on fairness scale.

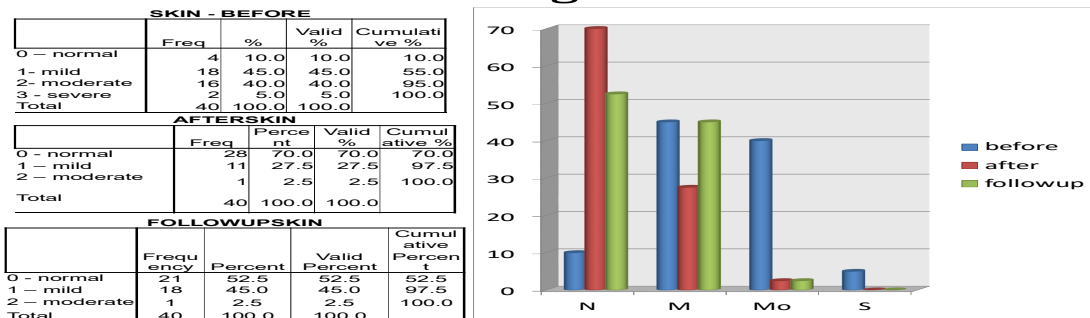
In follow up same fairness score was observed in 55%of subjects.45% shows decrease in fairness.

After applying **paired t-test**, p value is less than 0.005 so H0 is rejected that means red lentil face pack is significant fairness scale

Subjective parameter – change in skin texture

Table 2:

Skin change result



After applying Red lentil (*Masur*) and milk face pack changes in the skin type was found. Before starting the application, normal skin was noted in 10% subjects whereas mild oily as well as dry skin was observed in 45% subjects. Moderate oily and dry skin was present 40% of subjects. While only 5% subjects were found in severe category.

After completion of treatment, normal skin was observed in 70% of subjects. Mild skin in both oily and dry category was observed in 27.5% of

subjects. Whereas moderate skin in both oily and dry skin category was found in 2.5% of subjects. No. of subjects were noted in severe category in either of skin type.

It is found that after one month of treatment normal skin percentage increased and no severe oily or dry skin is noted.

In follow up, it was observed that normal skin was present in 52.5% of total subjects which is bit reduced but still no subjects were noted in severe category.

Table 3: Subjective change – smoothness of skin

smoothness		15th day	30th day	45th day
Maintained	n	24	11	23
	%	60.0%	27.5%	57.5%
Increased	n	16	29	0
	%	40%	72.5%	0%
Reduced	n	0	0	17
	%	0%	0%	42.5%
Total	n	40	40	40
	%	100.0%	100.0%	100.0%

On subjective parameter, smoothness is improved on 30th day in 72.5% it was maintained in 27.5% after 15th day observation

On follow up, skin smoothness was maintained in 57.5% no improvement is observed. In 42.5% of subject, it was reduced after stopping of face pack.

Table 4: Results in skin problems

Skin problem - <i>karshnyata</i> (Tanning)			
Fitzpatrick scale score		30TH DAY	45TH DAY
Improvement by 1	N	20	0
	%	68.9%	0
Improvement by 2	N	6	0
	%	20.68%	0
Maintained	N	3	16
	%	10.34%	55.17%
Reduced	N	0	13
	%	0	44.82%
TOTAL	N	29	29
	%	100%	100%

Table 5:

Skin problem – <i>Kantiheena</i> (Dullness)			
Fitzpatrick scale score		30TH DAY	45TH DAY
Improvement by 1	N	8	0
	%	72.72%	0
Improvement by 2	N	1	0
	%	9.09%	0
Maintained	N	2	6
	%	18.18	54.54%
Reduced	N	0	5
	%	0	45.45%
TOTAL	N	11	11
	%	100%	100%

Amongst all subjects *Karshnyata* (tanning) and *Kantiheena* (dullness) of skin was major concerned problems of the skin.

Karshnyata was noted in 29 subjects. After completion of treatment 68.9% of subjects has shown improvement by 1 score on Fitzpatrick scale. 20.68% subjects were found to be improved by 2 score on Fitzpatrick scale. Whereas 10.34% were maintained on the same score i.e. there was no improvement on the fairness scale. In follow up observation, there was no improvement on the Fitzpatrick scale but 55.17% subjects were maintained on the same score. 44.82% subjects were recorded to be reduced on fairness scale.

Kantiheena or dullness of skin was noted in 11 of total subjects. On Fitzpatrick scale improvement by 1 score was found in 72.72% subjects. 9.09% shows improvement by 2 on fairness score. Whereas 18.18% subjects shown no change on fairness scale after completion of the treatment. In follow up 54.54% subjects were maintained on the same score of Fitzpatrick scale but 45.45% of subjects shown reduced fairness score,

DISCUSSION

Vaatvruddikar Aahar like *Ruksha, Sheeta, Laghu, Dravya, Sevan, Katu, Tikta, Kashay Rasa* dominancy in diet. *Anashan-Adhyashana - Vishamashana-Prमितashana. Vata Vruddhikar Vihar* like excessive exercise, *Ativyavaya, Laghana, Plavana, Prapatana, Abhigata, Ratri jagarana, Vega Vidharana, Rathayana, AtiadhyaManasik Hetu* such *Atichinta, Shoka, Bhaya, Lobha, Glani* etc.

Pitta Dosha is responsible for natural complexion. So, factors responsible for vitiate *Pitta Dosha* changes natural complexion. Diet factors – *Katu Amla Lavana Rasa* dominancy in diet, *Ushna-Tikshna-Kshariya-Vidahi* food, *Adhyashan, Tila-Atasi-Kulattha-Sarshap-Dadhi-Sura Atisevana*. Life style factors like over exposure to sun, over exercise. Psychological factors – Anger (*Krodha*), fear (*Bhaya*), *Shoka*, Jealousy (*Irshya*), abhorrence (*Dweshha*) These factors are also responsible for *Raktavaha Srotodushtee*, Skin problems are one of the *Raktavaha Srotodushtee Laxanas*. *Rasa Sarata* is also called as *Twaka Sarata*. Factors affecting the *Rasa Dhatu* affect the *Twaka Sarata* resulting into dullness of complexion. *Twacha* or skin is *Updhatu* of *Mamsa Dhatu* so factors affecting

Mamsa Dhatu also malign its *Upadhatu* i.e. Skin. Ignorance of natural urges e.g. hunger also leads to skin problems⁶.

Masur is is *Ruksha* in *Guna* and milk is *Snigdha Gunatmaka*. This combination together works both on oily and dry skin and balance normal skin texture. That is why significant results were found in dry and oily skin. Diet and lifestyle factors hampering the complexion were not restricted during the study still results were found in enhancement of complexion. This shows Red lentil face pack work significantly as *Varnya Karma*.

Due to *Atapsevan Brajaka Pitta* get vitiated which in turn reduces complexion and *Kanti* of the skin, causes burning resulting into the *Karshnyata* (tanning) and *Kantihina* (dullness). *Madhur Sheeta Guna* is *Pittashamak* that is present in both *Masur* and milk. Application of this combination reduces vitiated *Pitta Dosha* and improves Complexion of the skin resulting in *Varnya Karm*.

Masur and milk *Lepa* also show good results in smoothness, as milk is *Mrudu Snigdha*. *Masur* is *Pitta Raktashamak* so it acts on *Bhrajaka Pitta* resulting perform *Varnyakar Karma* as *Brajak Pitta* is responsible for the color and complexion of the *Tvak*.

CONCLUSION

1. Red lentil face pack is proved significantly effective on Fitzpatrick scale which proves that Red lentil work as *Varnya Lepa*.
2. It certainly enhances complexion, reduces tanning and dullness.
3. Red lentil face pack is effective on both dry and oily skin.

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