Original Research Paper



Ayurveda

A COMPARATIVE CLINICAL STUDY OF MUSTADI KWATH AND SHASHANKLEKHADI CHURNA AFTER VIRECHANA KARMA IN EKAKUSHTHA

Dr. Sangita Devi	P.G. Scholar, P.G. Dept. of Kayachikitsa, Gurukul Campus, U.A.U. Haridwar.	
Dr. Punita Pandey*	Professor, P.G. Dept. of Kayachikitsa, Gurukul Campus, U.A.U. Haridwar *Corresponding Author	
Dr. Priyaranjan Twari	Associate Professor, P.G. Dept. of Kayachikitsa, Gurukul Campus, U.A.U. Haridwar.	
Dr Nimisha Mishra	Reader, Dept. of Roganidan and Vikriti vigyan, Shri Lal Bhadur Shastri college of Ayurveda	

In Ayurveda almost all skin disorder are explained under Kustha Rogadhikara. Ekakushtha is a type of Kshudra Kushtha. It is Vata Kaphaj disorder. It can be correlated with psoriasis both of these have similar symptoms Psoriasis is long lasting autoimmune inflammatory papulosquamous disorder characterized by patches of abnormal skin. These skin patches are typically red, itchy and scaly. Its symptoms often worsen during winter and with certain medication, such as beta blockers etc. Psychological stress can also play a role in manifestation of psoriasis. Both males and females are equally affected by this disease. Approximately 1-2% of World's total population is affected by psoriasis. Due to its chronic recurrent nature, it is a challenge to treat this disease. Total 20 patients diagnosed as Ekakushtha of any socio-economic status, age group of 15-60 years and irrespective of sex of all ethnic origins are randomly selected from OPD and IPD of Kayachikitsa of Gurukul Campus, UAU, Haridwar. The duration of study was 90 days with 2 follow ups will be done with the gap of 15 days after completion of treatment. Result -The drug provided a significant effect on the symptom; Group I- the relief percentage in Matsyosaklopamam 68.52%, in Mahavastu 46.67%, in Mandal 67.50%, in Rukshta 70.73%, in Kandu 69.57%, and Daha was 70.00% Group II - the relief percentage in Matsyosaklopamam 55.10%, in Mahavastu 33.33%, in Mandal 39.53%, in Rukshta 56.10%, in Kandu 71.79%, in and Daha was 71.43%. Group I provided marked relief in 25%, moderate response in 70% of the patients and mild improvement in 5% of the patients after completion of treatment. Group II provided marked relief in 5% and moderate response in 40% of the patients mild improvement in 55% of the patients after completion of treatment.

KEYWORDS: Ekakustha, Psoriasis, Virechana Karma, Mustadi Kwath

INTRODUCTION

In Ayurveda, almost all the skin disorders are explained under Kushtha Rogadhikara. The term Kushtha can be defined as the state in which disfigurement of body occurs. It has been elaborately described in almost all Ayurvedic texts. According to Acharya Charaka 'Sptakodravyasangraha' (group of 7 factors) is responsible for formation of all kind of Kushthas. This group of 7 factors includes three doshas namely – Vata, Pitta, Kapha and four dushyas namely – Twak, Rakta, Mamsa & Lasika. So it is obvious that vitiation of all three dosha is responsible for the development of Kushtha (skin disorders), but which kind of Kushtha will develop, it totally depends on the predominance of particular dosha or their combination.

The disease *Kushtha* is classified in two categories-'*Mahakushtha*' and '*Kshudrakushtha*' Further 7 types of *Mahakushtha* and 11 types of *Kshudra-kushtha*s are explained by *Acharya Charaka*. *Ekakushtha* is one among 11 types of *Kshudra-kushtha*. According to *Acharya Charaka*, vitiation of *vata* & *kapha* is responsible for the development of *Ekakushtha*. He has described symptoms as-

This is to say that, the disease in which there is complete absence of sweating over skin, with evidence of large scaly skin lesions is known as *Ekakushtha*.

According to *Aacha*rya *Sushruta*, it develops due to vitiation of *kapha dosha*. According to him symptoms of *Ekakushtha* are as follows² The disorder in which skin becomes black and reddish is known as *Ekakushtha*.

Ekakushtha can be correlated with psoriasis in modern medical science, beacause both of these have similar signs and symptoms, as³-

- Psoriatic lesions are dry and rough (Aswedanam).
- Lesions are spreaded over large area of body (Mahavastam).
- Lesions are covered with silvery scales which resembles skin of fish (Matsyashakalopamam).
- Lesions are erythematous and blackish in colour (Krishnaaruna varnata).
- The clinical feature of *Ekakushtha* described by *Aacharya*

Kashyap represents remission, relapse and seasonal variation which are present in Psoriasis.

Psoriasis is long lasting autoimmune inflammatory papulosquamous disorder characterized by patches of abnormal skin. These skin patches are typically red, itchy and scaly. Its symptoms often worsen during winter and with certain medication, such as beta blockers etc. Psychological stress can also play a role in manifestation of psoriasis. Both males and females are equally affected by this disease. Approximately 1-2% of World's total population is affected by psoriasis.

Due to its chronic recurrent nature, it is a challenge to treat this disease. In modern medical science corticosteroids, systemic therapy and PUVA therapy is used for its treatment. But they are well known for many serious side-effects. Hence there is the need of time to find out safe and effective medication for psoriasis. In *Ayuvveda* both *Shodhan* and *Shaman Chikitsa* are mentioned for *Kushtha*, which are cost effective having no side-effects. So we can hope for a holistic Ayuvvedic tratment in this disease. On the light of above merits, present study has been conducted with following aim and objectives-

- To establish etiopathogenesis of *Ekakushtha*.
- To evaluate the effect of Mustadi Kwath after Virechana karma in Ekakushtha.
- To evaluate the effect of Shashanklekhadi Churna after Virechana karma in Ekakushtha.
- To provide a reliable cost effective Ayurvedic treatment for Ekakushtha.

Kushtha in genral and Ekakushtha particularly has excessive accumulation of doshas and its chronic in nature. In Charaka Samhita Viman Sthan Acharya Charaka clearly recommends Shodhan therapy for diseases which manifests due to excessive accumulation of doshas. Both Aacharya Sushruta and Vaghbhata supports the idea of repeated Shodhan in all kind of Kushthas. Hence Shodhan theraphy seems to be the first line of treatment in Ekakushtha Vitiation of Rakta is crucial for manifestation of Kushtha and Virechana is considered best purifectory measure for vitiated Rakta. Inspite of blood purification Virechana

Karma also eliminates excessive Pitta, Kapha and Vata doshas from body, augment Agni and clears channels of the body. The procedure and drugs were selected on the basis of the Chikitsa Sutra & Doshik involvement in Ekakushtha and their ability to pacify the involved Dosha, rectifying the Agni and their ability to provide relief in symptoms.

Mustadi Kwath contains drugs like Nagarmotha, Triphala, Madanphala, Karanj, Amaltas, Indrayava, Saptparna, Kustha, Priyangu, Daruharidra, Sarshap. Which are having Kushthaghna, Kandughna, Dahanasak, Sothhar, Krimighna, Twakdoshhar, Vednahar and Rasayana properties.

Shashanklekhadi churna contains drugs like Bakuchi, Vaividang, Pippali, Chitrak, Mandur Bhasma, Aamalaki which have Kusthaghna, Jantughna, Varnashodhan, Agnideepak and Rasayana properties.

MATERIALAND METHODS SOURCE OF DATA

- Patients were selected from OPD and IPD of Kayachikitsa department, Gurukul Campus, U.A.U. Haridwar.
- Literary review Literary aspect of study is collected from classical Ayurvedic and Modern texts and updated recent Medical Journals
- Literary Source of Drugs The formulation of Kwatha was selected from Astanghridya Chikitsasthan, ninteen chapter and Churna was selected from Chakradutta fifty chapter. Drugs for Virechana karma were taken from Astanghridya Kalpsthan, two chapter.

SELECTION OF PATIENTS AND SAMPLING METHOD

- Total 20 patients of *Ekakustha* were selected from O.P.D / I.P.D unit, P.G. Department of *Kayachikitsa*, U.A.U. Gurukul Campus, Haridwar.
- Patients were randomly divided into 2 groups. 20 patients were allotted to each group on the basis of criteria of inclusion and exclusion.
- A detail proforma was prepared on the basis of Ayurvedic text and allied sciences and scoring of different clinical features was done on the basis of assessment criteria.

TYPE OF STUDY: Open clinical trial DURATION OF STUDY: 90 days SELECTION OF DRUGS

- For Shodhana (Virechana) Trivrit avleha
- For Shaman 1) Mustadi Kwath
- 2) Shashanklekhadi Churna

DRUGTRIAL SCHEDULE

The selected patients for trial were randomly divided into following two groups:

Group I: Patients will be treated with *Mustadi Kwath* after *Virechana karma*.

Group II: Patient will be treated with Shashanklekhadi Churna after Virechana karma.

TREATMENT SCHEDULE

Medicines	Dosage	Time of	Schedule
		administration	
Mustadi Kwatha	40ml, BD	After meal	Continuous for 90
			days
Shashanklekhadi	3gm, BD	After meal	Continuous for 90
churna			days

PREPARATION METHOD OF MUSTADI KWATH-

Kwatha was provided to patients in raw form. All the patients were showed and trained for the preparation of kwatha with following method- 0Mixture of coarse powder of all dry herbs was taken in amount of 10 grams. After adding 16 times of water (160 ml), it was allowed to boil in an open-mouthed container on low fire. Boiling was continued till it reduces to one-fourth. Then after filtering, patients were advised to taken it orally luke warm. They were instructed to prepare fresh kwath (decoction) each time.

ADMINISTRATION OF VIRECHANA KARMA:

Virechana karma divided into three stages, which are as follows

POORVAKARMA

Deepana-Pachana:

Trikatu churna 3gm BD with *sukhoshna jala* was administered to patient depending on their status of Agni in terms of Sama and Niramata for 3-7 Days till Niram Lakshanas are seen.

Snahana

The panchtikta gritha was given to all the 40 patients. The initial dose was 25ml (Hrisiyasi matra) with Luke warm water in early morning, after the digestion of the last night meal. During this period the patients were advised to consume little quantity of hot water in between and to follow all the restriction of Snehapaana in terms of diet (Time of food intake, Nature of food), Sleep (Avoid Divasvapna & Rathri jagaran) etc. Then patient was continuously observed for appearance of Sneha Jeeryamana, Sneha Jeerna features. Based on the time of Snehajeerna lakshana the dose of Sneha for next day was decided. As soon as Samyak Snigdha Lakshana are seen, the Sneha pana was stopped.

Swedana.

Once samyak snigdha lakshana appears then, from next day Sarvanga Abhangya with Tila taila. Thus Bhaya Snehana and Swedana was performed for 3 days and during this period patient was advised to avoid consumption of Kaphakara Ahara and Vihara.

PRADHAN KARMA

'Pradhana Karma' is 'Pana' of 'Virechana Yoga'. Patients were administered the Virechana Yoga prior to this in previous night Laghu, Ushna, Mridu, Guru and Ashleshmakar Ahar was suggested. Counting of the Vega of Virechana and accordingly the Shuddi was estimated on the basis of classical references. The drug use for purpose were as follows.

Virechana drug - Trivrt avahleh. The dose of the Virechana yoga varied depending upon Koshtha of the patient.

Before & after *Virechana karma*, vitals like Temperature, Pulse, Respiratory rate, B.P were recorded & careful monitor of the patients during *Virechana* process was done.

PASHCHAT KARMA:

Main 'Pashchat Karma' after 'Virechana' is 'Sansarjana Krama' 'Sansarjana Krama' is subjected to reactivate the 'Agni' called 'Agni Sandhukshana'

SANSARJANAKARMA:

After the Virechana Karma, patients Agni becomes very weak. The aim of Sansarjana Krama is to increase Agni gradually. Charaka has mentioned that the Peya, Vilepi, Yusha and Mamsarasa should be administered for the period of 3, 2 and 1 meal times to the patient having *Pravara*, *Madhyama* and *Avara* types of *Shuddhi* respectively (*Ch. Si.* 1/1, *A.H.Su.* 18/29).

After getting assumed that the proper *Shodahan*a has been archived the patients of this group were suggested to follow the *Sansarjan Krama* recommended by classics. After that *Shaman* drugs viz *Mustadi Kwath* and *Shashanklekhadi Churna* were administered

ASSESSMENT & FOLLOW UP

The assessment based on subjective parameter will be done at the interval of 15 days. The assessment based on objective parameters will be done before and after the therapy. Two follow ups will be done, with the gap of 15 days after completion of treatment.

INCLUSION CRITERIA

- Patients having classical features of *Ekakushtha* (Psoriasis).
- Patients from age group of 15-60 years.

EXCLUSION CRITERIA

- Patient suffering from Asthma, HIV, Anemia, Tuberculosis.
- Patient suffering from other major medical and psychiatric disorders.
- Pregnant and lactating women.
- Patients of age below 15 and more than 60 years.

CRITERIA FOR WITHDRAWAL

- · Personal matters
- Aggravation of complaints
- Intercurrent illness
- Any other difficulties

CRITERIA FOR ASSESSMENT:

Assessment was done on the basis of following parameters-

- 1. Objective parameters
- 2. Subjective parameters

SUBJECTIVE PARAMETERS:

The subjective assessment will be done on the basis of improvement in following cardinal symptoms of *Ekakushtha*-

- Matsyosaklopamam (Scaling).
- Mahavastu (Lesion are spreaded over large area of body).
- Mandal (Erythema).
- Rukshta (Dryness).
- Kandu (Itching).
- Daha (Burning sensation).

DEPICTING GRADATION METHOD FOR SUBJECTIVE PARAMETERS

Matsyashaklopamam (Scaling):

No scaling	0
Mild scaling by rubbing/by itching (scaling from some lesionis)	1
Moderate scaling by rubbing/by itching (from all lesions)	2
Severe scaling by rubbing / by itching (from all lesions)	3
Scaling without rubbing / by itching (from all lesions)	4

Mahavastum:

No lesions	0
Lesion on partial parts of hand, leg, neck, scalp, back	1
Lesion on most parts of hand, leg, neck, scalp, back	2
Lesion on whole parts of hand, leg, neck, scalp, back	3
Whole	4

Mandala (Erythma):

* *	
Normal skin	0
Very faint erythema	1
Faint erythema	2
Bright erythema	3
Very bright	4

Rukshata (Drvness):

No line on scrubbing with nail	0
Faint line on scrubing by nail	1
Lining & even words can be written on scrubbing by nail	
Excessive rukshta leading to kandu	
Rukshta leading to crack formation	4

Kandu

Kanuu.	
No itching	0
Mild / occasional itching	1
Moderate (tolerable) infrequent	2
Very severe itching disturbing sleep and other activity	3

Daha:

No daha	0
Mild daha	1
Moderate daha	2
Severe Daha affecting sleep	3

OBJECTIVE PARAMETERS-

The objective assessment will be done on the basis of changes in clinical findings, relevant laboratory parameters and PASI score before during and at the end of the trial.

Investigations-Blood-Hb%, TLC, DLC, ESR

- Liver function test
- Blood sugar
- Lipid profile
- KFT
- Other investigation will be done according to necessity.

OVERALLASSESSMENT

Improvement in subjective and objective parameters were calculated by percentage. The formula applied for this was-

 $[(TBT - TAT) \times 100] \div TBT$

Where TBT is 'Total score before treatment' and TAT refers to 'Total score after treatment'. The result obtained from individual patient for subjective parameters was categorized according to the following grades:

1 1 1	<u> </u>
ASSESSMENT	SCORE
Complete cure	100%
Marked Relief	>75%to 99%
Moderate Response	>50%to 75%
Mild improvement	25% to 50%
Unchanged	Up to 25%

STATISTICALANALYSIS

All information on various parameters was gathered and statistical study was carried out in terms of median (X), standard deviation (S.D), standard error, (S.E.) and wilcoxn's signed rank test before and after treatment in both groups while Mann-Whitney U test was applied to the statistical data for evaluating the difference in the effect of therapy.

P>0.05	Not Significant
P<0.05	Significant
P<0.01	Very Significant
P<0.001	Highly Significant

OBSERVATIONS AND RESULTS

Demographic Data

Maximum patients belong to the age group of 21-30 years (42.5%). Maximum patients were male (72.5%). Maximum number of patients belong to Hindu community (77.5%). Maximum patients belong to lower middle class(43.33%). Maximum number of patients were married (67.5%). Maximum patients have educational qualification graduation (35%). Maximum patients were serviceman and student (25%). Maximum number of patients were from urban areas (60%). It was observed that 12.5% of patients were from urban areas (60%). It was observed that 12.5% of patients had family history. Maximum patients had received previous treatment(80%). Maximum i.e. 62.5% patients were having 1-4 years chronicity. Habit of smoking and alcohol drinking was in about 17.5% patients. The observation reveals that about 67.5% patients were taking mixed type of diet. 45% patients had a disturbed sleep patient. Most of the patients were having constipated bowel habit (57.5%). Maximum number of patients were stressed. Maximum patients (60%) were of *Vata-Kaphaja Prakriti*.

RESULT OF THE THERAPY

Relief Percentage of Individual Symptoms in 40 Patients of Ekakustha

Relief Percentage-The drug provided a significant effect on symptom;

Group I- The relief percentage in *Matsyosaklopamam* 68.52%, in *Mahavastu* 46.67%, in *Mandal* 67.50%, in *Rukshta* 70.73%, in *Kandu* 69.57%, and *Daha* was 70.00%.

Group II- the relief percentage in *Matsyosaklopamam* 55.10%, in *Mahavastu* 33.33%, in *Mandal* 39.53%, in *Rukshta* 56.10%, in *Kandu* 71.79%, in and *Daha* was 71.43%.

STATISTICALANALYSIS ASSESSMENT OF SUBJECTIVE PARAMETERS

In subjective assessment in this group symptomatically the result was stastically significant (p<0.05) in lowering *Matsayshaklopamam*, *Mahavastu*, *Mandal*, *Ruksta and Kandu*, *Mandal*, *Daha*.

In subjective assessment of Group II symptomatically the result was stastically significant (p<0.05) in lowering *Matsayshaklopamam*, *Mandal*, *Ruksta* and *Kandu*, *Mahavastu* and *Daha*.

ASSESSMENT OF OBJECTIVE PARAMETERS

Effect of in this Group on biochemical parameters showed nonsignificant changes (p>0.001 NS) in SGPT, Hb% (P>0.187NS), Polymorphs (p> 0.051 NS), Monocytes (p>0.494 NS) where as significant lowering was noticed in Random Blood sugar, S. cholesterol, S. Triglyceride, SGOT, Blood urea, Serum Creatinine, ESR, Lymphocytes, Eosinophils and PASI Score.

Effect of Group II on biochemical parameters showed nonsignificant changes (p>0.086 NS) in SGPT, Hb% (p>0.379NS), Lymphocytes(P>0.194NS), Monocytes (p>0.186 NS), Eosinophils (P>0.171NS) where as significant lowering was noticed in Random Blood Sugar, S. cholesterol, S. Triglyceride, SGOT, Blood urea, Serum Creatinine, ESR, and PASI Score.

Comparative statistical evaluation of groups for subjective parameters-

In subjective symptoms Statistically significant value was obtained on comparing Group I vs Group II in *Matsyasalapamam* (p<0.004), *Mahavastum*(p<0.030), *Mandal* (p<0.008), *Rukshta* (p<0.014),

Kandu(p<0.021), Daha (p<0.034) Group I was better result in these symptoms than Group II.

Comparative statistical evaluation of groups for objective parameters-

In objective parameter Statistically significant value was obtained on comparing Group I vs Group II on biochemical parameters in Serum cholesterol, SGOT (p<0.015), SGPT(p<0.001), ESR (0.002), Eosinophils (0.014) while In other biochemical parameters (Hb%, TLC, Polymorphs Monocytes, Lymphocytes, Random Blood Sugar, S. Triglyceride, Blood urea, Serum Creatinine, ESR, and PASI score,) results was not statistically significant.

Assessment of Overall Effects of Therapies of 40 patients of

Mustadi Kwath i.e. Group I provided marked relief in 25%, moderate response in 70% of the patients and mild improvement in 5% of the patients after completion of treatment. Shashanklekhadi Churna i.e. Group II provided marked relief in 5% and moderate response in 40% of the patients mild improvement in 55% of the patients after completion of treatment.

DISCUSSION

PROBABLE MODE OF ACTION OF VIRECHANA KARMA:

All Aacharya mentioned that Kustha is the Raktja Vyadhi. In all the Twak Vikara, the vitiation of Rakta and Pitta mentioned. Virechana Karma acts on all Dhosha in general and Pitta and Rakta in particular. Deepana, Pachana, Snehapana followed by Virechana is the sequential order which was followed. Deepana and Pachana was administered with Trikatu Churna which had enhanced the digestive power and also facilitated for the early digestion of Sneha. Panchtikta ghrita was administered in Vardhamana Krama. Virechana was performed by Trivrit avleha.

In Virechana Karma maximum ingredient have Katu Rasa, Laghu, Rukshya Guna, Usna Veerya and Katu Vipaka. Vatakapha Shamak, lekhaniya, aampachana, which normalize the state of Agni thus, regulated Jatharagni, Dhatu Shoshana properties due to Raktaprasadak property it normalize pitta lead to kleda harna and give relive in the symptoms of psoriasis⁵

PROBABLE MODE OF ACTION OF MUSTADI KWATH:

Most of the ingredients of Mustadi kwath having Katu and tikta rasa, Ushna virya, Katu vipaka, laghu guna and Tridoshaghana property seem to quite naturally antagonise the Ekakushtha which is Vata-Kapha pradhana vyadhi. Acharya Sushruta in Su.46 has described Lekhana and Ropana properties of Laghu guna. Lekhana property might help in management of Hyperkeratinization which leads to scaling. Acharya Vagbhatta described the ushana virya has vatakaphashamak property and according to Ashtanga Hridayam it has ashupaka property through which it acts quickly at minute channels. The compound preparation attributed with Agnideepak property rectifies the kha-vaigunya at srotasa level. Quick absorption of the Kwath from the amashaya due to its Vikasi and Vyavayi properties also contribute in quickly implementing its action. Mustadi Kwath possesses Tridoshaghana property and Srotovishodhana property therefore it clears the Avrodhatamaka Samprapti in Rasayaha, Raktayaha, Mansayaha and Swedayaha srotasa due to the vitiated Vata and Kapha as doshas Twak, Rakta, Mansa and Lasika as dushya-thus effectively mitigating the disease Ekakushtha.6

PROBABLE MODE OF ACTION OF SHASHANKLEKHADI CHURNA:

Ekakustha is Vatakapha Pradhan Vyadhi the dravyas of Shashanklekhadi Churna contains Laghu, Ruksha, Tikshna, and Snigdha guna except Mandur Bhasma which is Sheet Guna. Laghu, Ruksha, Tikshna Guna of Dravyas Kaphahar property and Sheet Guna is Rakta Prasadan. Vata dosha is subsided by Snigdha Guna. Shashanklehadi Churna mainly has Tikta, Katu and Kashaya Rasa have Aampachan, Agnideepak, Kleda Shoshan and Pitta Kaphahar properties. All dravyas of Shashanklekhadi Churna are Katu Vipaka except pippali which is Madhur Vipaka is useful to Sarva Dhatu Vardhan and acts as a Rasayana and Katu Vipaka of Dravyas has Kaphahara property. All Dravyas of Shashanklekhadi Churna are Usna Veerya except Mandur Bhasma and Pippali. Mandur bhasma is Sheet Veerya and Pippali is a Anoushnasheet Veerya. The Usna Veerya helps in Aampachan, Srotoshodhan and Agni Deepan and Sheet Veerya

Looking to the Karmas, it is clear that almost all the drugs are having

Kushthaghna, Kandughna and Rasayana properties which clearly explain its mode of action in Ekakushtha.

Thus the mode of action of Shashanklekhadi Churna can be understood on the basis of its Rasa, Guna, Veerya, Vipaka and Karma.

CONCLUSION

Ekakushtha being a Kshudra Kustha has VataKapha dominance & even involvement of Tridosha can be evident from its signs & symptoms. Ekakushtha in modern medical science has similarity with Psoriasis. Most of the patients were reported in the chronic stage of Psoriasis. Negligence in early stage and recurrence of psoriasis is common phenomenon. Maximum patients had the history of Virrudhaahara and constipated bowel which clearly shows the role of Ama formation in pathogenesis of Kushtha. Chinta is Mansika Nidana which leads to Vataprakopa which was observed in maximum number of patients. Also maximum patients were found stressed and anxious. This observation clearly shows the psychosomatic nature of the disease. Family history was supporting in many patients which suggests that the disease is hereditary. The disease used to aggravate during winter season and in dry weather. Maximum number of patients had the chronicity of 1-4 years and had previously undergone allopathic treatment. It clearly shows the relapsing nature of the disease. It suggests that, long term treatment is necessary for eradication of the disease. Rasa, Rakta, Mamsa and Swedavaha Srotodushti were found chiefly and Kapha and Vata were main Dosha who vitiated these Dhatu and Srotasa.

BEFORE TREATMENT















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