

A CLINICAL STUDY ON THE EFFECT OF THUTHADI LEPA IN THE MANAGEMENT OF KADARA (CORN)

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ABSTRACT

Kadara is distressing condition, mainly seen in working class population. It is occasionally inflamed, producing and causing severe pain. As it resembles the fruit of Chirapodika. It has greater similarity with corn. Kadara explained the Kshudra Roga category in Susruta Samhitha by Acharya Susruta. The earliest records of foot care, including corn care availed in the tomb of Ankhmahor. For the management of Kadara generally surgical or para-surgical procedures are performed. But, certain invasive procedures need great care, attention and precision and are not tolerant to all. Compared to that, Lepa is a non-invasive technique and easy to perform. Thuthadi lepa is mentioned in Kshudra Roga Adhikara of Arogya Kalpadruma, is used for current study where prepared medicine is applied in consecutive 3 days, externally by following protocole. Under the study of 30 patients, the statistical analysis of the result shows statistically significant.

KEYWORDS: Kadara, Lepana, Thuthadi Lepana.

INTRODUCTION

Kadara is a disease that occurs due to repeated injuries and friction mainly in soles and palms due to thorns, stones etc. and has occasional pain.^[1] Acharya Susruta in kshudra-roga chapter details about Kadara in which Vata and Kapha Dosha, causation of Shula and Shotha, aggravated and gave hard painful protuberance in the middle and end of the foot.^[2]

The disease corn is a localized hypokeratosis of the skin.^[3] It occurs at the site where more pressure is experienced and appears horny induration of the cuticle with a hard center. In the initial phase, corn is painless. Later it may be painful, particularly when it is rubbed. Human beings' evolution bipedalism added mobility, and allowed hands to perform other activities. Due to a variety of activity, weight bearing areas affected worse, particularly feet. The earliest records of foot care, including corn care, were available in the tomb of Ankhmahor (2400BC).^[4]

Modern science advocates the use of various chemicals like salicylic acid or by excision under local anesthesia. Acharya Susruta, in Susruta Samhitha mentioning about para-surgical procedure in the management of kadara. But, certain invasive procedures need great care, attention and precision and are not tolerant. There by surgical and para-surgical procedures considered as last resort.^[6]

Lepa is one among Shashti Upakrama,^[7] mentioned by Acharya Susruta which is a non-invasive technique, where prepared medicine is applied externally by considering certain parameters and waiting for a recommended time period. Acharya Charaka and Vagbada also recommended the same. Thuthadi Lepa,^[8] is mentioned in kshudra Roga Adhikara of Arogya Kalpadruma, and is selected for the study. The formulation has Vata Kaphahara property by the combination hence pain and Shotha subsided, having Chedana property, Cost-effective and easy to prepare. Aim of the study

Aim of the study is to describe the results of usability of Thuthadi Lepa in the management of Kadara.

MATERIALS AND METHODS

Study carried out by the approval of IEC (KAMC/IEC/89/ 2019-20). The patients suffering from Kadara are randomly selected from OPD of Karnataka Ayurveda medical college hospital Mangaluru and the patient referred from other hospitals.^[30] patient randomly selected irrespective of sex, religion, marital status, socio- economic status and occupation. the medicine used for the study Thuthadi Lepa is prepared under the guidance of Rasasastra and Bhaishaja Kalpana department of the institution. It contains Thutha, Sankhaphashanam, Hingulam, Manasila, Hataksharam, Sarjam, Gandhakam, Sivaretas and datura leaf juice.

The patients included for the study are willing to give consent and excluded those are not willing to give consent, after educating the patient in detail. After obtaining the consent, the identified site was washed with water and dried. Thuthadi Lepa applied after positioning a pre-designed template in order to maintain the thickness (of buffalo skin \approx 1.8mm) and area. It takes 20 to 30 minutes to dry the lepa. thereafter a gauze bandage is applied. The procedure repeated in consecutive 3 days and evaluated pain itching and tenderness to compare change in gradings.

Table number 1: pain rating scale

Pain grade	
No pain	0
Mild pain – localized feeling of pain, but tolerable (during movements)	1 to 3
Moderate pain- localized feeling of pain but not tolerable (during movements)	4 to 6
Severe pain- localized movements of pain (even during rest and sleep)	7 to 10

Table number 2: itching scale

Itching grade	
No itching	0
Mild itching (occasional and doesn't disturb routine activity)	1
Moderate itching (frequent itching and disturbs routine activity but not sleep)	2
Severe itching (disturb sleep and routine activity)	3

Table number 3: scale of tenderness

Tenderness grade	
No tenderness	0
Mild tenderness	1
Mild tenderness with grimace and flinch to moderate palpation	2
Severe tenderness with withdrawals.	3
Will not allow to palpate	4

OBSERVATION AND RESULT

All patients selected under inclusion criteria have manifested the disease in lower limb only. Analysis of 30 patients suffering from Kadara shows more number of

patients from 40-60 (56.67%) years age group. 70 % male registered in comparison with 30 % female. In the study group, comparatively 86.67 % comes under the working class.

Majority of patients selected under inclusion criteria come under more than 60Kg weight. They constitute 93.33% of the sample size. Assumption of this criteria is fostered if add the statistical data obtained from working class, middle class, diet.

Table number 4: effect of pain kadara.

Symptom Pain before treatment (BT)							
After treatment (AT)		BT-AT	%	SD	SE	T value	P
value							
Pain	4.667	0.367	4.300	93.4	1.393		
	0.254	16.903	< 0.001				

The statistical analysis shows that the mean score of pain (Table number 4) which was 4.667 before treatment, reduced to 0.367 after treatment with 93.4 percent and there is statistically significant change.

Table number 5: effect of itching in kadara.

Symptom Itching before treatment (BT)							
After treatment (AT)		BT-AT	%	SD	SE	T value	P
value							
Itching	1.0	0	4.300	100.0	0.455		
	0.083	12.04	< 0.001				

The statistical analysis shows that the mean score of itching (Table number 5) which was 1.0 before treatment, reduced to zero after treatment with 95.0 Percentage and there is statistically significant change.

Table number 6: Effect of tenderness in kadara.

Symptom Tenderness before treatment (BT)							
Tenderness after treatment (AT)		BT-AT	%	SD	SE	T value	P
value							
Tenderness	3.433	0.600	2.833	85.5			
	0.913	0.167	17	< 0.001			

The statistical analysis shows that the mean score of tenderness (Table number 6) which was 3.433 before treatment, reduced to 0.600 after treatment with 85.5 percent and there is statistically significant change.

DISCUSSION

Kadara is a disease found in working class people. The present study is an effort to assess the efficacy of Lepa Karma in the management of Kadara.

In human beings evolution bipedalism added mobility and freed hands to perform other activities. This affected worsley in the weight bearing area, especially in foot. Corn is disease due to repeated injuries and friction

mainly in sole, but can be seen in hand also. If goes through various historical records we can find the term corn there.

Vata and Kapha are the Dosha involved in the development of kadara traverse and localized in Dathu Medha and Raktha. When Vata vitiates, it reacts with Dhatu like Rasa, Raktha, Mamsa and Medhas develop discoloration, Vrana, painful and painless Granthi consecutively.

In Ayurveda classic in the management of Kadara, excerpts direct surgical excision and thereafter Agnikarma with Sneha Dravya. Surgical procedures are to be considered last resort if and only other treatment modalities are hopeless because Surgical procedure are needed greater cares, attention, precision, and always not tolerable. In this contest procedure lepa is used in the management of Kadara. It is simple and cost effective and noninvasive in nature.

The effect of the treatment was assessed based on pain, itching and tenderness. The parameters were given specific grades. The assessment was done before, and after the day of treatment and the obtained data statistically analyzed.

Before the treatment, 13.33 percent have mild tolerable pain, but 80 percent have moderate localized feeling during movements and the remaining 6.67 percent have severe pain even during rest time. After treatment, 73.33 percent showed no pain, and 26.67 percent persisted mild localized feeling of pain on movements.

Before the treatment 10 percent of patients had no itching and 80 percent had mild occasional itching but 10 percent have severe itching, which disturbs throughout the day. After the treatment, no one showed itching.

Before treatment, 3.33 percent had mild tenderness at the time of palpation, 10 percent had mild tenderness with grimace and flinch to moderate palpation, 26.67 percent had severe tenderness, 60 percent had severe tenderness with withdrawal from noxious stimuli. After the treatment, 70 percent had mild tenderness and 70 percent had no tenderness.

Antaparimarjanam and Bahiparimarjanam are the two types of Chikitsa. Lepa Kalpana is one among the Bahyachikitsa like Upanaham and Malahara Kalpana mentioned in Ayurvedic classics. Pouring water over a burning house results in extinguishing of fire, in the same manner aggravated dosha will get subsided by the application of Lepa. It has specific Lekhana (The drugs which dry and scrape out the tissues or impurities called Lekhana), Chedana (The drug that forcefully roots out the sticky properties of Dosha called Chedana. Term sticky indicates large quantity adhered strongly in the body.), Kapha Vatahara, Medohara properties which will

add more effect. So, this combination will be more helpful to remove the deep rooted kadara very easily.

This property is utilized only when malasanchaya exists in the body, if not, depletion of body elements occurs. Majority of drugs used to prepare Thuthadi Lepa has Chedana and Lekhana property and possesses Ushna Veerya. And Sphatika possesses alkaline property, hence Ksharana.

In the formulation, the majority of drugs having Thridoshagna/ Kapha Vata pacifying and Medhohara property. As the Samprapthi of Kadara explains vitiation of Vata and Kapha Dosha along with Rasa, Raktha and Medho Dhatu Dushti, the line of treatment should be Kapha Vata Vamaka and Medhohara.

CONCLUSION

Kadara is a small beaded structure seen in sole and palm, and that should be removed to restrict progression. In Ayurveda classics, various modalities are advocated in the management of Kadara. Pradeha is the type of Avisoshi Lepa mentioned in Susrutha Samhitha. It pacifies vata Kapha Dosha. It also has Sodhana, Ropana, Sopha- Vedanahara, Mrudukarana, Twakprasadakara properties. It is noninvasive, less expensive and easily performed. Lepa prepared out of Thuthadi Lepa Yoga which has specific Lekhana, Chedana, Kapha Vatahara, Medohara properties will add more effect so this combination will be more helpful to remove the Kadara very easily.

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