

# Role of Agnikarma in the Management of Kadar [Recurring Corn] - A Single Case Study

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## ABSTRACT

Agnikarma in Ayurveda refers to treatment or management of a disease or affected part by application of heat. Precisely Agni refers to fire, but here in this karma, fire is used to heat the instrument and that heated instrument comes in contact with the body, so the name. Kadar (corn) is the hard, thickened skin of the sole or precisely hyperkeratosis of a part of the sole which has undergone constant pressure or repeated minor trauma continuously at the same place. It is a painful condition as it progresses. In modern science, corn is being treated with topical keratolytic, like salicylic acid, urea, hydrocolloid dressings, silver nitrate, anti-inflammatory drugs, corn cap excision and ablative laser therapy, but even today, there is no satisfactory and permanent treatment available for corn due to its high recurrence. In Ayurveda, corn can be correlated with Kadar. Acharya Sushruta has advised treatment of Kadar with Agnikarma. Hence, in this study, corn(Kadar) was treated with Agnikarma for a duration of one month, which included 1 sitting of agnikarma followed by dressing for 20 days, followed by Vranaropak treatment for the next 10 days. We have done Bindu(dotted type) of Agnikarma (cauterization) with application of Yashtimadhu Ghrita for better results. This therapy cured the Kadar completely, which is observed in the present case study. The patient was observed for 6 months after treatment to watch for recurrence.

**Keywords:** Pain Relief, Agni karma, Kadar, Corn, recurrence.

## INTRODUCTION

Corn, known as Kadar in Ayurvedic terminology, can be correlated with conditions exhibiting features of Padadari or chronic Dushta Vrana. It presents as a localized area of thickened, hardened skin, often accompanied by pain and difficulty in ambulation. Corn is a localized hyperkeratosis of the skin. It usually occurs at the site of pressure on the sole and toes. There is usually a horny induration of the cuticle with a hard centre.

Corn can be painful particularly when it is rubbed. Corn has a tendency to recur after excision. It has a deep central core which reaches the deeper layer of dermis.<sup>[1]</sup> Conventional treatments such as surgical removal or application of keratolytic agents may

provide temporary relief but are often associated with recurrence. Agnikarma, a para-surgical technique described in the Sushruta Samhita, is traditionally recommended for disorders involving Vata and Kapha doshas. It has shown promising outcomes in the management of conditions like Kadar, offering long-lasting relief with minimal recurrence. According to Ayurveda, Kadar may develop as the vitiation of Vata dosha with Kapha Dosha. Vata Dosha and Kapha Dosha have been considered as the important factors for causation of Shotha (inflammation) and Shoola (pain)<sup>[2]</sup> Kadar, (Granthi) a painful, hard growth raised at the middle or sunk at the sides, which exudes a secretion and resembles an Indian Plum (Kola in shape) and appearing at the soles (palm according to – Bhoja) of a person as an outcome of the vitiated condition of the local blood and fat produced by the deranged Doshas incidental to the pricking of a thorn etc. or of gravel is called Kadar.<sup>[3]</sup>

## AIMS AND OBJECTIVES

1. To study the role of Agnikarma in the treatment of Kadar
1. To estimate the efficacy of Agnikarma.[ Thermal Cauterization.]

In Ayurveda, Kadar is described as a painful, localized, thickening or hyperkeratosis of the skin that develops due to continuous pressure, injury or friction. It is also said to be developed due to imbalance in the body's Doshas- primarily Vata and Kapha due to which there is Dushti of Meda and Rakta dhatu which leads to the formation of Kadar and there is pain in it.

शर्करोन्मथिते पादे क्षते वा कंटकादिभिः ॥  
मेदोरक्तानुगैश्चैव दोषैर्वा जायते नृणाम् ॥ ३० ॥

सु. नि. १३

Kadar also sometimes exudes secretion and resembles an Indian Plum (Kola) in shape. Kadar means Indian Plum hence the name.

कोलमात्रः सरुक् स्रावी जायते कदरस्तु सः ॥ ३१ ॥

सु. नि. १३

It appears at the soles and has a deep central core which reaches the deep layers of dermis. It is usually white, yellow or grey in colour. Kadar can be correlated with corn in modern science.

It is usually white/grey/yellow in color and is common in females.<sup>[4]</sup> Most of them are hard corns and soft corn occur in between the toes.<sup>[5]</sup> Kadar can be correlated with Corn. Modern science prefers to the excision of the symptomatic corn and also application of salicylic acid preparation or mixture of salicylic acid, lactic acid and collodion can be helpful.<sup>[6]</sup>

But in Ayurveda, Acharya Sushrut mentioned the treatment of Kadar by application of Agnikarma with Tiltail in Kshudrarog Chikitsa chapter of Sushrut Samhita.<sup>[7]</sup> Agnikarma is a procedure in which there is the application of heat in the affected part. The therapeutic use of Agni is described as Agnikarma in Sushrut Samhita Strasthana Chapter 12. There is no chance of recurrence of disease which is treated with Agnikarma.<sup>[8]</sup>

It is also included in Anushastra. Anushastra means Parasurgical procedures.<sup>[9]</sup>

Modern science prefers excision, application of keratolytics such as salicylic acid, urea, hydrocolloid dressings, silver nitrate, anti-inflammatory drugs, corn cap as treatment options, which are effective to some extent, but many individuals seek traditional Ayurvedic procedures for long-term relief and minimal recurrence. Among these classical therapies, Agnikarma, a controlled therapeutic heat application using specially designed instruments, holds a significant place.

Agnikarma is traditionally indicated for conditions involving localized pain, stiffness and hard tissue formations. Its ability to provide quick relief and promote healthy tissue regeneration, makes it an effective option for managing Kadar.

In Ayurveda, Acharya Sushruta has mentioned the treatment of Kadar by scraping it followed by Agnikarma with Sneha(Snigdha Agnikarma) such as Ghee or Oil.

उत्कृत्य दम्ध्वा स्नेहेन जयेत्कदरसंज्ञकम् ॥ २३ ॥  
सु. चि. २०

In this case Agnikarma is chosen as treatment option because Acharya Sushruta has said Agnikarma as a method of Apunarbhava Chikitsa(non-recurring treatment) which is a need in all corn cases as they are usually recurring. Also Agnikarma has been specially indicated for surgically incurable (Shastrakarma Asadhya) diseases.

तद्गदानां रोगाणामपुनर्भावाद् भेषजशस्त्रक्षारैरसाध्यानां  
तत्साध्यत्वाच्च ॥२॥

सु. सू. १२

Corn also cannot be completely cured only by surgical excision. So Agnikarma is done here. This case study also explores the role of Agnikarma in the treatment of Kadar, highlighting its procedure, therapeutic outcomes and relevance in contemporary Ayurvedic

clinical practice as well as preferable over modern sciences' treatment options due to its qualities. Agnikarma can be correlated to Thermal Cauterization.

**Case report:** A 55-year-old female patient presented with complaints of hardened structure on the sole of great toe with pain while standing and walking. She had these complaints in the last 1.5 years with gradual increment of the structure in size. There was no personal history of any major systemic illness. She had taken treatment for the same, where it was diagnosed as corn 1.5 years ago at a hospital nearby. The surgeon excised the corn at that time. But there was recurrence, 3 months after the first excision was done. Then later on she got treated for the same by a homeopathic doctor who again excised the corn and gave her some homeopathic medicines. There was recurrence again at this time, 4 months after the treatment. After both these treatments, the excised wound of corn was never completely healed.

So, the corn was not plain in surface, as it was excised twice previously, and recurred. Also, due to the patient's occupation, there was constant trauma to the surgically excised area, so it was not completely healed. Thereafter, the corn(Kadar) was treated with Agnikarma in the following way.

## MATERIALS AND METHODS

**Materials:** Loha Shalaka, Yashtimadhu Ghrita, Kumari Swarasa, Scalpel with blade, Sterilized Gauze pieces, Sponge holding forceps, Artery forceps, Vranashodhak kashaya as told in Charak Chikitsa 25 which consists of Triphala, Khadir, Darvi, Nyagrodhadhi gana, Bala, Kusha, Nimbapatra, Kola patra.

Lepa to apply right after Agnikarma as told in Samyak Dagdha Chikitsa in Su. Sootra. 12 which consists of Vanshalochana, Plaksha, Raktachandan, Gairik, Amruta mixed in Ghrita.

Ropan Malahar(Malahar Kalpana)was used during the dressings as told by Sushruta for Dagdhavrana Ropan chikitsa which includes Madhuchshishta Yashtimadhu, Lodhra, Sarjarasa, Manjishtha, Raktachandan, Moorva and Ghrita.

### Methodology:-

#### Poorvakarma-

Before Agnikarma, informed written consent was taken.

CBC, BT, CT, HIV, HbsAg, BSL-R, etc. routine blood investigations were done. The sole of the left foot below The Great toe was applied Vranashodhak kashaya and wiped with sterilized gauze pieces.

**Pradhana karma-** The Kadar was scraped with the use of scalpel with blade. This is called the Lekhan Karma which is told in Sushrut Samhita Kshudraroga Adhyaya as a procedure to be done before Agnikarma

in case of Kadar. Then Yashtimadhu Ghrita was applied followed by Agnikarma with red hot Loha Shalaka. Agnikarma was done by Bindu prakar (dotted type of cauterization) with the tip of Shalaka. Everytime Shalaka was applied within the area of corn for 10 seconds, till the Shalaka reaches the core part of Kadar and the core is also cauterized and Samyak Dagdha Lakshana are seen. During and after the entire procedure, Kumari Swarasa was applied immediately after the application of red hot Shalaka to get relief from Daha(burning sensation).

#### **Pashchat karma-**

Patient was advised to apply the Lepa as mentioned above by mixing in Ghrita for 3 days at bedtime. After 3 days, patient was called for dressing of the wound. While dressing, Vranashodhak kashaya as mentioned earlier was applied and wiped off with sterilized gauze pieces and then Ropan Malahar as mentioned earlier was applied as an ointment on the Agnikarmakrit Vrana.

Dressing in this manner was done regularly with intervals of 3 days because the dimensions of corn were greater than usual. Dressing was continued till 20th day of the Agnikarma procedure. Thereafter, patient was advised only to apply Ropan Malahar daily until 30th day, and then the treatment was stopped completely. Patient was advised not to put pressure on the greater toe until the Kadar wound is completely healed. Because 'Pressure' is the 'Hetu'(causative factor) in Kadar as told by Acharya Charak and Sushruta.

It has been 6 months now after it has completely healed and there is no sign of recurrence.



#### **DISCUSSION**

Corn formation occurs due to repeated pressure or friction over a localized area, leading to thickened skin. From an Ayurvedic perspective, such hard swellings are associated with an imbalance of Vata and Kapha doshas. Agnikarma, a therapeutic heat-based procedure, is believed to balance these doshas and

offers several benefits: Disintegrates the fibrotic core, Enhances local blood flow, Provides immediate pain relief While modern medicine uses techniques like cauterization with similar objectives, Agnikarma differs in being minimally invasive, safe, and suitable for outpatient care. Existing Ayurvedic case studies have reported high success rates and low recurrence, supporting its clinical utility in managing plantar corns.

The main responsible Dosha for Kadar are Vata and Kapha and the responsible Dushya are Meda and Rakta. Agnikarma Chikitsa can be used for both Vata and Kapha disorders and diseases treated by Agnikarma do not reoccur. It gives instant pain relief to the patients. There is no fear of complications such as sterilization and bleeding due to contact with Agni. The central core of corn reaches the deeper layer of dermis and only Agnikarma therapy has the property to destroy the pathology in the deeper structure. Agni and Sneha do this with their properties of Ushna, Teekshna, Sookshma, Vyavayi, Vikasi and Pachan Guna.<sup>10,11</sup>

Sneha is used in Agnikarma of corn because Kadar(corn) is a hardened structure so there is Rukshatva(dryness) property already in Kadar. To overcome the Rukshatva of Vata, Snigdha(Oily) Guna is essential to make the structure soft.

#### **PROBABLE MODE OF ACTION OF AGNIKARMA<sup>12</sup>-**

In the process of Agnikarma, transferring of therapeutic heat to twak dhatu (skin) and gradually to deeper structure was done with the help of a red hot panchadhātu shalaka which would have acted eventually to pacify ama dosha and srotovaigunya and consequently rendered relief in symptoms of shoth and shoola.

To treat such condition, Agnikarma chikitsa is indicated as a best treatment modality.[12] Therefore, to pacify the vitiated vata and kapha dosha, Agnikarma was done which helped to reduce the shoth and shoola by virtue of its opposite qualities such as ushna (hot), tikshna (sharp), sukshma (fine), and ashukari (quick acting).

#### **EFFECTS OF AGNIKARMA**

- Increases metabolism
- Increases blood circulation
- Decreases pain
- Exciting/stimulating nerves
- Relaxation to muscles
- Decreases infection
- Decreases joint stiffness and inflammation.
- Effect of Agnikarma on mamsa dhatu will reach into sira, snayu, asthi & sandhi.
- In the field of pain management and cosmetic therapy, Agnikarma procedure can be done very effectively and safely.

- Its procedures are simple and almost have no medicines for internal and external use.
- To the patients, it is very convenient and economic.
- Agnikarma procedure needed to have more scientific studies and evaluation.

### CONCLUSION

- 1) Kadar(Corn) can reoccur if it's only surgically excised.
- 2) Agnikarma therapy is more suitable in the management of corn. Agnikarma is superior for local Vata and Kapha doshaja vyadhi because it gives instant relief.
- 3) Agnikarma is a superior method of treatment because Acharya Sushruta has mentioned it as Apunarbhav Chikitsa which means diseases treated by Agnikarma do not reoccur. It cannot be an overstatement to say that Agnikarma is the final and best treatment available for Kadar(Corn).
- 4) Agnikarma is also a superior method of treatment because Acharya Sushruta has mentioned its usage in Shashtrakarma Asadhya Vyadhi which means indicated specially for diseases which cannot be cured by surgical methods(excision).
- 5) Agnikarma has no side effects, complications and recurrence.
- 6) Agnikarma is cost effective as compared to surgical excision with respect to post excision antibiotics, analgesics and anti-inflammatory drugs.

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