



# REVIEW OF CLINICAL FEATURES AND THERAPEUTIC APPROACH ON KADARA

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**Abstract:** Acharya Sushruta classifies *Kadara* under the 44 *Kshudra Rogas*, which classically correlates with Corn in contemporary medicine. It is characterized as a localized hyperkeratosis of the epidermis resulting from pressure, or constant trauma<sup>1</sup>. Pathologically, *Kadara* is a *Kapha-Vataja* disorder that vitiates the *Rakta* and *Meda Dhatus*. This forms a hard, deep-seated, bolt-like nodule (*Sakeela*)<sup>2</sup>. When the deep apex of this keratotic core projects inward it compresses underlying nerve producing localized pain on pressure. *Utkartana* (surgical excision) followed immediately by *Sneha Dahana* utilizes high latent heat to completely destroy the central root, providing an *Apunarbhava* (non-recurring) cure by pacifying *Vata* and *Kapha*. This review highlights *Agnikarma* clears the deep core structure and preventing recurrence.

**Key words** - Kadara, Corn, Kshudra Roga, Agnikarma, Shalyatantra

**Introduction** Ayurveda aims to help individuals achieve the four primary goals of life: *Dharma*, *Artha*, *Kama*, and *Moksha*, all of which require a state of complete physical and mental well-being. Within *Shalyatantra* various surgical and parasurgical techniques are deployed to address debilitating local lesions. In developing and agriculture-reliant nations like India, a significant portion of the population undergoes manual labor without adequate protective footwear. India is an agriculture-based country, where 20% of total population lives in urban areas where as rest 80% living in rural. As it is developing country, where most of the population rely on manual labor either for agriculture or construction and such other means of livelihood. Due to poor protective measures, ignorance, negligence and poor economic status, chances of developing foot and palm lesions are quite high, most common lesion which is seen in feet is corn<sup>3</sup>. The incidence of corns on the feet has been reported to be ranging anywhere from 14% to 48%. They have been reported to affect older age groups with a slight female predominance due to wearing narrow shoes. The elderly are also subject to loss of the protective fat pad cushioning, called fat pad atrophy, which can increase the incidence of painful corn<sup>4</sup>

**Vyutpatti and Nirukti<sup>5</sup>:**

*Kadara* word is derived by the union of *Ka+Dru+Al*.

“*Kena - Vayuna pada visisthabhagan drunathi darayathi nasayathi iti kadara*” (Sabdakalpadruma)

**Kadara means** - That which destroys the particular part of foot by the growth on palms and soles caused by vitiated *Kapha* and *Vata*.

**Paribhasha:**

*Kadara* is a hard, painful, deep seated nodular growth on soles and palms which is caused by any injury, that leads to vitiation of *Kapha* and *Vata dosha* which is resembles like seed of kola.

शर्करोन्मथिते पादे क्षते वा कण्टकादिभिः |  
मेदोरक्तानुगैश्चैव<sup>13</sup> दोषैर्वा जायते नृणाम् ||  
सकीलकठिनो ग्रन्थिर्निम्नमध्योन्नतोऽपि वा |

कोलमात्रः सरुक् स्रावी जायते कदरस्तु सः | su ni 13/29-30

**Ayurvedic Review of Kadara****Nidana (Etiology)**

The foundational etiology involves local trauma to the foot (*Pada*) caused by:

- *Kantaka* (Thorn pricks)
- *Sharkara / Pashana* (Pebbles or rough stones during barefoot walking)
- Constant frictional pressure

**Samprapti (Pathogenesis) & Ghataka**

The sustained micro-trauma or injury alters local tissue equilibrium, initiating a deep-seated pathogenic cycle:

- Doshas: *Vata* and *Kapha*
- Dushyas: *Twak*, *Rakta*, and *Medas*
- Srotas: *Raktavaha* and *Medovaha* Srotas
- Adhithana: *Pada*

**Roopa (Clinical Features)**

Acharya Sushruta classifies *Kadara* under the 44 types of *Kshudra Rogas* (minor diseases). The primary clinical symptoms include:

- *Kathina Granthi*: A hard, deep-seated nodular swelling.
- *Sakeela*: Shaped like a bolt.
- *Nimna Madhya Unnata*: Depressed at the center with elevated, hyperkeratotic margins.
- *Vedana & Sravi*: Distinct localized pain upon pressure, occasionally accompanied by exudation.
- Acharya vagbhata explains due to placing of feet unevenly while walking or due to localized injury caused by thorn pebble or sharp objects, forms a localized glandular swelling of the size of *kolasthi* (hard inner seed of jujube), it becomes hard associated with pain and occasional discharge<sup>6</sup>.

**Modern Perspective of Corn****Layers mentioned by Charaka<sup>7</sup>:**

The six layers of the skin is explained by Acharya Charaka. The external first layer is recognized as *Udakadhara*. The second layer is *Asrugdhara*. Third layer is site of manifestation of *Sidma Kusta*. The fourth layer is the site manifestation of *Dadru Kusta*. The fifth layer is the site

of *Alaji* and *Vidradhi*. The sixth layer is the site of boils, where excision of the part can lead to severe symptoms, boils are difficult to treat.

### Layers mentioned by Sushruta<sup>8</sup>:

According to Acharya Sushruta *Twak* is formed by the union of *Shukra* and *Shonita*. The layers of skin are formed in several layers and compared to the formation of creamy layer in boiling milk. The thickness of each layer as well as the diseases which occurs in respective layers are explained, first layer is *Avabhasini* it imparts the color and illuminate five kinds of *Chaya*. The thickness is 1/18th part of *Vreehi Dhanya*. It is the site of the diseases like, *Sidma* and *Padmakantaka*.

The second layer is *Lohita* having the thickness of 1/16th part of *Vreehi*. It is the site of the diseases like, *Tilakalaka*, *Nyachha* and *Vyanga*.

Third layer is *Shweta* with the thickness of 1/12th part of *Vreehi*. It is the site of the diseases like, *Charmadala*, *Ajagalika* and *Mashaka*.

Forth layer is *Tamra* with the thickness of 1/8th part of \**Vreehi*, it is the site of the diseases like, *Kilaasa* and *Kusta*.

Fifth layer is *Vedini* with the thickness of 1/5th part of *Vreehi*. It is the site of the diseases like, *Kusta* and *Visarpa*.

Sixth layer is *Rohini* with the thickness of the size of a *Vreehi*. It is the site of the diseases like *Granthi*, *Apachi*, *Arbhuda*, *Slipada*, and *Galaganda*.

Seventh layer is *Mamsadhara* with thickness of double the size a *Vreehi*. It is the site of the diseases like, *Bhagandara*, *Vidhradhi* and *Arshas*.

The thickness is applicable to rich muscular part, scalp and less fleshy areas should be excluded.

### Layers mentioned in Astanga Sangraha

Acharya Vagbhata's explanation is similar to that of Acharya Sushruta. Whereas the first layer is named as *Bhasini* and second layer is named as *Lohini*, the remaining layers are similar to Sushruta.

### Layers mentioned in Astanga Hrudaya

The detail description of *Twak* is not explained by Acharya Vagbhata. He explains similar to Sushruta in exception he mentions that *Twak* is by *Asraja*.

### Layers mentioned by Bhavaprakash

The explanation about *Twak* is similar to Acharya Sushruta's explanation but, he names the seventh layer as *Sthoola*. The disease in the third layer is *Charmadala*, and in fourth layer diseases are *Kilasa* and *Shvitra*.

### Layers mentioned by Sharangadhara

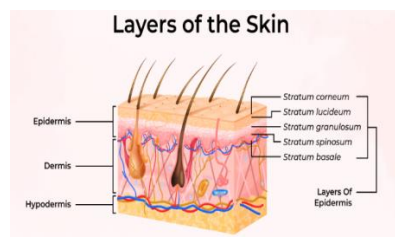
Acharya explains *Twak* similar to that of Acharya Sushruta's explanation, but the thickness is said to be, the total thickness is equal to that of two *Vreehi*.

**Table No 05: Layers of Twak according to different acharyas.**

Layers	Charaka	Sushruta (Thickness)	Vagbhata	Sharangdhara	Bhela
1	Udakadhara	Avabhasini- 1/18th of Vreehi	Bhasini	Avabhasini	Udakadhara
2	Asrukdhara	Lohita of Vreehi	1/16thLohita	Lohita	Asrukdhara
3	Tritiyak	Shweta of Vreehi	1/12thShwetha	Swetha	-
4	Chaturthi	Tamra of Vreehi	1/8thTamra	Tamra	-
5	Panchami	Vedini vreehi	1/5thVedini	vedini	
6	Shasthi	Rohini 1 Vreehi	Rohini		Rohini
7	-	Mamsadhara 2 Vreehi	Mamsadhara		Sthoola -

**Table No 06: CORRELATION OF TWAK TO SKIN**

Sushruta	Dr. B.G. Ganekars	Present view
Avabhasini	Horny layer	Stratum Corneum
Lohita	Stratum lucidum	Stratum Lucidum
Swetha	Stratum granulosum	Stratum Granulosum
Tamra	Malpighian layer	Stratum Spinosum
Vedini	Papillary layer	Papillary layer
Rohini	Reticular layer	Reticular layer
Mamsadhara	Subcutaneous Tissue	Telasubcutanea

**Epidermis:**

1. Stratum Corneum
2. Stratum Lucidum
3. Stratum Granulosum
4. Stratum Spinosum

**Dermis:**

1. Papillary layer
2. Reticular layer

**Hypodermis:**

1. Subcutaneous tissue

In contemporary medicine, a corn is recognized as a localized hyperkeratosis of the epidermis consisting of a conical wedge of highly compressed keratotic epithelial cells.

**Pathophysiology**

Mechanical friction or intermittent pressure keratinocytes in the *Stratum Corneum*. The base of this conical mass sits on the skin surface, while its deep apex projects inward to impinge dermis. When this core compresses underlying nerve, it produces acute, sharp pain upon downward vertical pressure.

**Classifications & Sites<sup>9</sup>**

1. **Hard Corn (*Heloma durum*):** Found over prominent bony projections, the lateral sides of toes, and the soles. Features a distinctive white central core of degenerate cells and cholesterol.
2. **Soft Corn (*Heloma molle*):** Soft and macerated in consistency, typically appearing in the damp webs between the 4th and 5th toes due to adjacent phalangeal pressure.

**Differential Diagnosis**

- **Callosity:** Larger, superficial, yellow-white hyperkeratotic patches that are diffuse, lack a central penetrating core, and are typically painless.
- **Plantar Wart** Viral lesions where pain is classically elicited via *lateral* (side-to-side) squeezing, whereas corn pain is triggered by *direct vertical* pressure.

**Management:**

Ayurvedic Parasurgical Interventions

- *Utkartana* followed by *Sneha Dahana (Agnikarma)*<sup>10</sup>: Acharya Sushruta advocates for surgical excision (*Chedana/Utkartana*) immediately followed by thermal cauterization (*Dahana*) using heated *Sneha* ensuring deep tissue penetration to destroy the central root. Agnikarma pacifies properties of Vata and Kapha and offers an *Apunarbhava* (non-recurring) cure<sup>11,12</sup>.

**Modern Treatment Protocol**

- **Conservative:** Application of 10% to 40% salicylic acid in collodion or corn caps over successive nights to chemically peel away layers of softened keratin.
- **Surgical:** Complete surgical excision under local anesthesia, taking specific care to dissect down to the *Stratum Granulosum* layer to clear out the entire central root core, followed by chemical cauterization of the base using trichloroacetic acid or phenol to lower recurrence rates.

**Conclusion**

Kadara (Corn) is a physically restrictive condition driven by localized mechanical pressure and friction. While modern approaches rely on chemical keratolytics or radical surgical scalpel excisions, the Ayurvedic approach offers highly targeted options. Combining localized excision with parasurgical modalities like *Agnikarma* offers an effective way to thoroughly clear out the deep core structure, preventing recurrence.

**ACKNOWLEDGMENT**

Dr pallavi A. Hegde for constant support and guidance

BVVSAMCH for proving institution support, facilities for successful completion of this work.

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