

## ***Sudigai (Agnikarma) treatment for foot corn: Case report***

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### **Abstract**

*Suddigai (Agnikarma)* means the procedure done with fire. References about *Suddigai* are available in almost all Siddha and Ayurvedic preventive, curative and haemostatic properties were unveiled even centuries back. These same principles are adopted in advanced technologies like cauterization, diathermy, radiation therapy, laser therapy, station device etc. *Suddigai* is the prime para-surgical procedure to treat chronic diseases, which are most difficult to manage because of the antagonistic property of doshas, like the disease caused by *Kapha*. *Suddigai* is done in neurogenic pain, tendinopathies or in diseases of skin, muscle, vein, ligament, bone or joint where the pain is an exclusive factor. A 64 years old male patient was admitted at Herbal Health Care Centre on 10<sup>th</sup> April 2017 with complaints of pain and elevated cystic swelling on the right and left sole due to rough and hard footwear. There was no history of direct trauma except that the patient was used to walking barefoot on rough roads. There was a history of excision of elevated layers of corn done repeatedly by the patient himself before visiting us. On the basis of clinical examinations, the patient was diagnosed as a case of corn at the right and left sole. After careful assessment and examination, the patient was treated with *Sudigai*. The Patient completely recovered from foot corns after regular use of *Sudigai* every week. Thus, from the case report it is clear that the Para-surgical procedure of *Agnikarma / Sudigai* helps to treat foot corns. So, *Agnikarma* therapy is more satisfactory in the management of corns.

**Keywords:** *Suddigai, Agnikarma, Siddha, Ayurveda, Kapha.*

### **Introduction**

Calluses and corns are almost similar in origin which reflects as thick, hardened layers of skin that develop when one's own skin develops its own defense mechanism to protect itself against friction and pressure<sup>1</sup>. Corns and callosities are more common in the elderly, not because their skin growth changes but because changes in the skeleton cause redistribution and misdistribution of weight bearing. Callosity is a raised thickened patch of greyish-brown hyperkeratic skin over an area of excessive wear and tear<sup>2</sup>. Thus, they are common on the hands and feet and their site varies with the patient's occupation and skeletal structure. As they exercise a protective function, they are best left alone, but the diagnosis can be confirmed by carefully paring away the top layer of roughened skin to expose the homogeneous, shiny, translucent layers of dead skin beneath<sup>3</sup>. Corn is a similar but smaller lesion that is pushed into the skin. Thus, it forms a palpable nodule with a central yellow–white core of dead cornified epidermal cells. Corns are found on the soles of the feet, the tips of the toes and over the dorsal surface of the interphalangeal joints<sup>4</sup>. The main differential diagnosis is the plantar wart. These two lesions are identified by paring away the top layers of skin with a knife to expose either the corn's core of dead translucent tissue, or the verruca's soft fusiform processes<sup>5</sup>. Prolonged exposure of the skin to sunlight can cause areas of hyperkeratosis of the skin, which cause areas of hyperkeratosis of the skin, which may undergo malignant change. According to Siddha Medicine, corn can be correlated with the disease “*Aanikkoodu*” and Ayurveda the disease ‘*Kadara*’.

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As per Ayurveda concept, a knotty and painful hard growth raised at the middle or sunk at the sides, which exudes a secretion and resembles an Indian plum and appears on the sole of a person as an outcome of the vitiated condition of the local blood and fat produced by the deranged *Dosha* incidental to the pricking of a thorn or of gravel is called *Kadara*. The growth-like appearance in a nail from the inside due to placing the foot on a rough stone or hurt by thorns etc. is known as *Kadara*. *Kadara* may develop as the vitiation of *Vata* with *Kapha dosha*. *Vata* and *Kapha* have been considered the important factors for the causation of *Shotha* (inflammation) and *Shoola* (Pain)<sup>6</sup>. *Suddigai* (*Agnikarma*) (cauterization) means a procedure done with fire. References about *Suddigai* are available in almost all Siddha, Ayurveda preventive, curative and hemostatic properties were unveiled even centuries back. These same principles are adopted in advanced technologies like cauterization, diathermy, radiation therapy, laser therapy, station device etc. Clinically is the prime para-surgical procedure, to treat chronic diseases, which are most difficult to manage because of the antagonistic property of *Dosha*, like the disease caused by *Vata* and *Kapha*. *Suddigai* is done in neurogenic pain, tendinopathies or in diseases of skin, muscle, vein, ligament, bone or joint where the pain is an exclusive factor. It is also suggested in hyper granulated neurogenic ulcers, sinuses, tumors, hemorrhoids, fistula-in-anus, warts, moles, and trauma to joints and veins<sup>7</sup>. But in internal hemorrhage, multiple wounds and in rupture of internal organs it should not be practiced. Fearful persons, old aged, are also exempted because of their weak mental strength. In persons with dominant Pitta traits of the body and in unretrieved foreign bodies which is a potent source of infection, the persons contraindicated for *Suddigai pitta*. Based on the part where cauterization is to be done and the ability of a material to retain and transmit heat energy, different instruments are enumerated by the ancient Substances which can retain less heat and can transmit a lesser amount of heat energy is indicated for skin like *Pipper longum*, goat's and cow's tooth, wooden arrow /*Shalala*.

Substances that can retain more heat energy and can transmit it to further deeper layers are used for burning the muscles, tendons and ligaments. For e.g. (in a stone carved in the shape of *Eugenia jambolana* Lam.) metals are used for transmitting the heat energy to the level of muscles and honey, jaggery or other viscous materials like oil, fat etc. are used to transmit the heat energy to ligaments<sup>8</sup>.

### Case report

A 64 years old male patient was admitted to Herbal Health Care Centre on 10<sup>th</sup> April 2017 with complaints of pain and elevated cystic swelling on the dorsal aspect of the right and left sole due to rough and hard footwear and barefooted over a period of fifteen years. On inquiry, the patient was found to be a case of controlled diabetes for 15 years, however, which become uncontrolled for six to eight months. his blood glucose levels were within normal limits. But in the last two months developed non-healing wounds over the left and right foot. He took treatment for the same from modern medicine surgeons but the prognosis was poor. There was no history of direct trauma except that the patient was used to walking barefoot on rough roads. There was a history of patient excision of elevated layers of corn done repeatedly by the patient himself, before visiting us. On the basis of clinical examination, the patient was diagnosed as a case of corn at the right and left sole. After careful assessment and examination, the patient was treated with *Sudigai* treatment procedure

### Materials and Methods

The materials used are *Panchadhatushalak*, Gas Stove, *Triphala* decoction, Gauze pieces, Sponge holding forceps, *Pachaiennai* (Green oil), Aloe vera leaf pulp, *Curcuma churnam*.

### Procedure of *Suddigai* (*Agnikarma*)

#### *Purva karma* (*Preoperative procedure*)

Inform written consent of the patient was taken after explaining in detail the procedure. Then the patient was allowed to adopt a comfortable position over the operating table as per the site of the lesion. The

site was cleaned with *Triphala* decoction and wiped with a dry sterile cotton gauge to attain asepsis.

#### ***Pradhana karma (Para operative procedure)***

The surrounding area was draped in a sterile sheet. Then gas was opened and *Suddigai shalaka* was on it and heated till it become red hot. Red hot *Shalaka* was applied on the lesion in *Pratisarana* (a flat type of Cauterization) with the base of *Panchadhatu salaka* followed by *Bindu* (dotted type of cauterization) to burn the “*Annikoodu*” (corn) (Figure 1). Every time *Shalaka* (heated instrument) is applied within the area of corn for 30 seconds. In case needed, the *Shalaka* was reheated and again applied to the lesion after assessment until the whole of the hyperkeratosis tissue was burnt. Soon after *Suddigai karma*, Aloe vera leaf pulp was applied over the site of *Suddigai karma* to reduce the burning sensation. Proper precautions were taken to evade the production of *Asamyak dagdha* (incomplete burn) (Figure 2).

#### ***Paschat karma (Postoperative procedure)***

After completion of the procedure, the wound was covered with *Curcuma longa* powder and the entire procedure was repeated at the interval of seven days for desirable results. The patient was advised to apply the paste of *Curcuma longa* powder mixed with *Pachaiennai* (green oil) at bedtime up to the normal appearance of the skin.

This procedure was repeated at the interval of 1st week up to 20 weeks (Figures 3,4, and 5).



**Fig.1: Suddigai procedure**



**Fig. 2: Before treatment**



**Fig. 3: After 12 weeks of treatment**



**Fig. 4: After 15<sup>th</sup> weeks of treatment**



**Fig. 5: End of the treatment**

## Discussion

*Suddigai* pacifies *Vata* and *Kapha dosha*. When we see the *Nidana* (etiology) of *Kadara*, *Vata* and *Kapha* are the chief *Dosha* responsible for its manifestation. *Suddigai* helps in decreasing pain by alleviating the vitiated *Vata*. The *Ushna guna* of *Agni* is helpful to reduce the *Sheetha guna* of *Vata*. *Swedana* is capable of decreasing the symptoms and healing easily, as *Suddigai* is also a *Swedana karma* that heals the lesion completely and there is no recurrence. According to Dr. Ven Hanff the place where heat burns the local tissue metabolism is improved<sup>9</sup>. By the application of heat, it provides additional heat to the tissue which activates the *Dhatwagni* and removes the *Shrotavarodha*. Due to this there is dilatation of blood vessels and improves the circulation to the tissue. Activation of *Dhatwagni* and improved circulation may help in the formation of new healthy tissue. Similarly, Aloe vera is analgesic, anti-inflammatory, antioxidant and wound healing action<sup>10</sup>. It has a quick action on burning sensation as its *Virya* is *Sheeta* (cold potency) and *Curcuma* powder also has the properties of anti-inflammatory, wound healing, antioxidant and analgesic<sup>11</sup>. Thus, Aloe vera and *Curcuma* help to relieve pain and secondary infection. Acharya Sushruta said that the disease which is not cured by *Bhesaja*, *Ksahara*, *Sastra chikitsa*, can be cured by *Agnikarma* and there are no changes of reoccurrence as it itself a sterile procedure. In modern medicine, there is a reoccurrence of corn after the use of medicine locally and it being excised which is painful and time-consuming as well. But after the use of *Agnikarma* (*Suddigai*) there is no change of reoccurrence as well as there is no complication of it. Heat increases local circulation and tissue metabolism, vasodilation, increasing nutrition to the cells and heals the wound completely. The *Agni* is having *Laghu* and *Ushna guna* which helps to relieve the *Shrotorodha* and *Kandu* (itching) by reducing *Kapha*. For *Suddigai* as keeping the heated *Shalaka* over the excised part, because of the heat, it kills the micro-organism also. Along with the

unhealthy tissues burn some healthy tissues also by this it avoids recurrence.

## Conclusion

The patient is completely recovered from foot corns after regular use of *Suddikai* (*Agnikarma*) every week and Green Oil application every day for a period of 6 months. Thus, from the case report, it is clear that the Para-surgical procedure of *Suddikai* helps to treat foot corns appropriately and in cases with corns to prevent further growth of corns Instead of surgical excision, *Suddikai* therapy is more satisfactory in the management of corns. *Suddika* (*Agnikarma*) is a procedure in which there is no need for local anesthesia, the procedure is not too painful as compared to surgical excision. There is also no chance of bleeding as well. Since there is no chance of recurrence and a cost-effective procedure, *Suddikai* is the best for the “*Aanikkoodu*” or “*Kadara*” (corn)

## Conflict of Interest

Not declared

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