



## Effectiveness of Karanool therapy application on Pilonidal Sinus (*Purai pun*) - A case study

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### Abstract

Siddha system of medicine is one of the traditional systems in southern part of India established by siddhars. According to siddha, diseases occur due to vitiation of three biological humours namely *Vaatham*, *Pitham* and *Kabham*. The treatment modality is classified into three types namely *Manida Maruthuvam*, *Vinnavar Maruthuvam* and *Asura Maruthuvam*.<sup>(1)</sup> Surgery is a phenomenal technique substantiated by siddhars was used to treat many acute and chronic conditions. *Karanool*, under the classification of *Asura Maruthuvam* is a minimal invasive siddha technique used in treating several conditions such as fistula, external hemorrhoids, skin tag and warts. According to the *Sambasivampillai* dictionary the term pilonidal sinus can be compared with *Purai pun*.<sup>(2)</sup> Pilonidal sinus is an acquired condition often presenting with recognizing signs of infection. This study elicits a case report of pilonidal sinus treated with *karanool* therapy. The patient recovered with complete excision of the tract in a period of three months. This research finding will lead to explore the administration of this specialized therapy *karanool* to treat pilonidal sinus without any adverse effects globally.

**Keywords:** *Karanool*, *Asura Maruthuvam*, *Purai Pun*, Pilonidal sinus.

### Introduction

Siddha system is widely practiced in south India from time immemorial. The systems possess a vast repository of external medicines and therapies. Siddhars had a wide knowledge about all fields of medicine and also excelled in surgical practice. Stone inscriptions in various parts of south India shows evidences of surgical treatments used in olden days.

Pathitru-paththu is a book on cheraa kings and the fifth part runs thus:

The scar on his chest...scars of glory...  
The scar made by long sutures  
Wrought by needles of silver glow  
Dug and drawn like the fish of cool water  
Down and up as it goes.....

These sequence talks of the instrument used, the type of treatment accorded and the efficacy of the surgical treatment in olden days.

Karanool is a chemical cauterization method used in treating ano rectal problems in siddha. It is used to get rid of the non-viable tissues in the body and promote healing.

Pilonidal sinus - the word 'pilonidal' means nest of hairs.<sup>(3)</sup> The condition was first described by Herbet Mayo in 1883.<sup>(4)</sup> Sinus is a blind ending tract, usually lined with granulation tissue that leads from an epithelial surface into the surrounding tissue, often into an abscess cavity.<sup>(5)</sup> These sinuses are commonly found in the skin covering the sacrum, coccyx. Hairs break off by friction and then find the entry either through the opening of the sudoriferous gland or through the softened skin either by sweat or some form of dermatitis. Pilonidal sinus is usually found in the natal cleft. Initially patient may be asymptomatic. Recurrence is common with rates of up to 40%. This condition is mainly seen between 15 – 40 years at this age the mouth of the sudoriferous gland becomes wider. The incidence is 26 per 1,00,000 population.<sup>(6)</sup> It is rare before puberty and after 40 years. It is common in men and also in dark haired.<sup>(7)(8)</sup> Symptoms are pain and discharge; pain may be from dull ache to throbbing. Several treatment modalities have been tried for pilonidal disease, including lancing, phenol injection, surgery, cryosurgery, flaps surgery, but it has high recurrence rate and painful wound management. *Karanool* therapy is a simple technique with minimal pain and doesn't require hospitalization.

### Pathophysiology

After onset of puberty;

Sex hormones affect sudoriferous gland

Hair follicle become distended

Development of folliculitis

Infected follicle extends and ruptures into the subcutaneous tissue

Forming pilonidal abscess

This results in a sinus tract that leads to deep, subcutaneous cavity

Multiple discharge sinuses<sup>(9)</sup>

## Materials and Methods

### Ingredients

*Papaya latex* - *Carica papaya*

*Nayuruviuppu* - *Achyranthes aspera*

*Manjal* - *Cucuma longa*

### Preparation of karanool:

The Barbour's surgical linen thread (no 20) is tied on a hanger. Freshly collected latex of *Papaya* (*Carica papaya*) is soaked in a gauze piece and smeared over the thread and then hanger should be replaced into the cabinet at a temperature of 40°C for a period of 6 hours. This process is repeatedly done for 7 times. The above smeared thread coated with latex and then processed through fine powder of *Nayuruviuppu* (*Achyranthes aspera*) and repeated for 9 times. Similarly the above thread was smeared with fine powder of *Manjal* (*Curcuma longa*) for 11 times. Thus the total number of coating is done for 27 times.

### Method of sealing

Each thread is removed from the hanger and folded in the Centre. It is then kept in a polythene bag of appropriate size and gently sealed. This thread is again put into sterile glass tube. Before sealing put a Small silica bag into the glass tube because of little moisture is left inside the tube, will be absorbed by silica. The sealed tubes are again put into the cabinet and exposed to ultraviolet radiation.

## Case Report

A 20 years old male patient came to the OPD of *Aruvai Thol Maruthuvam* department at National Institute of Siddha with complaints of swelling present in mid cleft of the gluteal region, pus

discharge, mild discomfort present while sitting and lying posture since 3 years. Occasionally patient felt mild pain and itching in the natal cleft. Patient had no history of painful defecation, bleeding per rectum, mucus or any kind of discharge through the anus.

### **History of past illness**

No history of Hypertension, Bronchial asthma, Diabetes mellitus, Tuberculosis.

### **Family history**

No relevant family history

### **Local examination**

#### **Inspection**

Patient had a small cyst in the mid cleft of the gluteal region with central opening and mild pus discharge in the sacrococcygeal region.

#### **Palpation**

A cord like structure present below the cyst to above the anal region. Mild tenderness and pus discharge was present while palpating.

#### **Sinus Probing**

Probing was done and the length of the tract was measured to be 5.5cm. It is also made sure that there is no anal opening to confirm the diagnosis of the patient.

#### **Other Examinations**

The patient was assessed for any other pathological conditions of the anal region, such as external pile mass, skin tag, anal fissure, rectal prolapse and perianal dermatitis.

All other routine investigations such as CBC, blood sugar level, blood urea, serum creatinine, bleeding time, clotting time were within normal limit. HBsAg, HIV, HCV, MANTOUX TEST were found to be non-reactive.

### **Treatment procedure**

#### **Pre - operative procedure**

Enema was given at early morning on day to be operated. After proper bowel evacuation, patient was taken to recovery room and injected 2%xylocaine intradermal for sensitivity test.

#### **Operative procedure**

Under local anesthesia, probe was inserted through the opening and the tract was traced till it blind end and another opening was made over the skin up to the tip of the probe. Caustic thread was inserted using malleableprobe and thread was drawn from another opening. Tie the thread with three secure knots.

#### **Post-operative**

After finishing operative procedure patient was monitored up to 2 hours.

#### **Follow ups**

During the treatment period patient was asked to change the thread once in 7 days. Patient was kept under the OPD medication. The wound was cleaned and dressed twice a day.

#### **Duration of treatment**

The patient recovered with complete excision of the tract in a period of three months.

**Subjective parameters**

Perianal disease activity index (PDAI)

Symptoms	Pre treatment	Middle of the treatment	After treatment
Pain/restriction of activities	1	0	0
Discharge	2	1	0
Burning sensation	0	0	0
Tenderness	1	0	0
Degree of induration	0	0	0
Length of tract	4cm	2cm	0



Primary threading



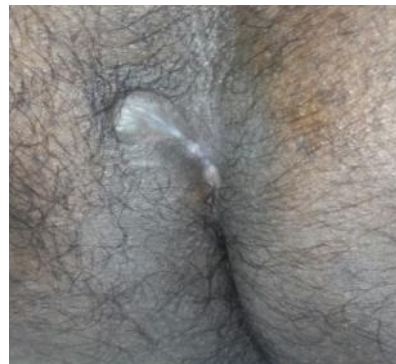
Middle of the treatment



Cut through done, wound starts to heal



Before treatment



After treatment

## Result and Discussion

Pilonidal sinus is not a new disease entity but the management still needs a lot of attention to prevent its recurrence which is a disturbing complication. This modality of surgical management was chosen for this condition to overcome its complications and other comorbid conditions. *Karanool* therapy is a unique siddha technique which works by the chemical cauterization and mechanical strangulation along with drainage of tract. It prevents the accumulation of pus within the tract by ensuring continuous drainage causing lysis of unhealthy tissues. It produces formation of fibrosis in the healed tract with minimal inflammatory components.

## Conclusion

Although a number of surgical procedures are available for the treatment of pilonidal sinus in modern science there is no assurance against its recurrence. The *Karanool* therapy seems to be a better option to prevent its recurrence and less painful than other surgical interventions.

## Recommendations

Thus this therapy is strongly recommended for the treatment of pilonidal sinus because it is simple,

safe and cost effective. The efficacy of *Karanool* therapy in the management of pilonidal sinus should be carried out in large number of subjects to reveal the undeniable success of this study.

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