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# Clinical Evaluation of *sivappukukilthaila* paste with *panchathuvarpikasayam* in the Management of Wound

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**ABSTRACT :** Ayurvedic hospital, vaharai managed the unhealed wounds with wound dressing with herbal medicine successfully. Therefore this research was done to evaluate efficacy of research dressing package as *sivappukukilthaila* paste with *panchathuvarpikasayam*. These were prepared by hospital labourers under my guidance. The *panchathuvarpikasayam* used as cleansing the wound area and *sivappukukilthaila* paste apply on wounds as healing paste. Research method was Clinical Trial, Research period was 04 months (September to December, 2013), Research samples was Random sample from OPD patients, total Samples was 42 and Research assessment was measurement and visual record of wound healing. According to results and observation; Sample Age defined as; 12 –below and 29 years, 28 -30 years to 59 years and only 02 –above and 60 years. Sex of the samples were got result was 31 samples were male and 11 samples were Females. Associate symptoms of samples were; no sample complaints only fever, 3% of only lymphnode enlargement, 5% of only Oozing, only pain and lymphnode enlargement and Oozing. 12% of fever with Oozing. 19% of fever with lymphnode enlargement and fever with pain. 24% of lymphnode enlargement and pain. Character of wound of samples were; Clean-17, Pus-25, granulation tissue formation -13, regular edge -21, irregular edge -21, bad smell -18 and Slough -20. These all characteristic of unhealed wounds were healed within 04 months of routine wound dressing by using of research drug *panchathuvarpikasayam* with *sivappukukilthaila* paste significantly.

**KEYWORDS:** wounds, wound dressing, *sivappukukilthaila* paste and *panchathuvarpikasayam*.

### I. INTRODUCTION

Wound healing is a complex and dynamic process with the wound environment changing with the changing health status of the individual. The knowledge of the physiology of the normal wound healing trajectory through the phases of hemostasis, inflammation, granulation and maturation provides a framework for an understanding of the basic principles of wound healing. Through this understanding the health care professional can develop the skills required to care for a wound and the body can be assisted in the complex task of tissue repair.

Wounds are occurs various way however healing of wounds are same physiology. In Vaharai area public doing their work in fishing and farming which are create wounds seldom in their life. Some People who has wounds they are treating themselves with surrounding natural herbs. Another people were gone to hospital to treat the wounds. Vaharai has only one Government allopathic hospital and one Ayurveda hospital. These both hospitals were 10km distance gap. I worked as Medical Officer In-charge at Ayurvedichospital, Vaharai. I faced so many patients were came their wound complaints several time Therefore I started wound dressing with herbal medicine successfully.

This research was done in there to evaluate efficacy of research dressing package as *sivappukukilthaila* paste with *panchathuvarpikasayam*. These were prepared by hospital labourers under my guidance. The *panchathuvarpikasayam* used as cleansing the wound area and *sivappukukilthaila* paste apply on wounds as healing paste.

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## II. MATERIALS AND METHODS

Research method: Clinical Trial, Research area: Ayurvedic Central Dispensary, Vaharai, Batticaloa, Research period: 04 months (September to December, 2013), Research samples: Random sample from OPD patients. Samples: 42, Research assessment: measurement and visual record

### Inclusion criteria:

Both sex with any age patient with fresh wound (onset by within 01 month). Incision wound, laceration, injured stab wounds, bed sores, scabies, severe acne, eczema, burn and abscess wound.

### Exclusion criteria:

Too old wound with internal pain but external wound was healed. Deep wound with uncontrolled blood sugar Patient with *Diabetes mellitus*. Amputated condition, necrotic condition, too deep erode to bony level, bone fractured wound, deep head injuries, eye involvement, haemo-thorax stab wounds, abdominal stab injuries and severe internal organ involvement wounds. Etc.

**Methods:** Literature review, Drug preparation

*sivappukukilthila paste with panchathuvarpikasayam*

Sample selection, Sample Enrollment to research and initiate data collection, Follow-up with data analyzing, Study with result and observation

- Research Drug preparation: *sivappukukilthila paste with panchathuvarpikasayam* method of preparation from siddha pharmacopoeia.
- Prepared drugs (photography attached in appendix)
- Medical consumable items such as cotton wool, gauze, plaster and sterile gloves took from Regional Medical Supply Division (RMSD), Batticaloa.

Samples were follow-up with routine wound dressing on every 48hrs period.

Symptoms	Assessment variable	Score / Tool	Final assessment
Fever	Degree Celsius	Thermometer	Normal (36.5°C)
Lymph node enlargement	Size in mm / Cm	Ruler	Fully disappear
Oozing	Area mark	Paper cutting area	No oozing
Pain	Qualitative	Visual Analogue Score (0-10)	No pain

Table 1: symptoms with wounds

## III. LITERATURE REVIEW

### Modern medical view:

#### Phase of Healing

**Hemostasis** Immediate Platelets Capping off conduits

**Inflammation** Day 1 - 4 Neutrophils Unskilled laborers to clean up the site

#### Proliferation, Granulation

**Contracture** Day 4 - 21 Macrophages

**Remodeling** Day 21 – 2 years Fibrocytes Remodelers

#### Basic Principles of Wound Care

There are three basic principles which underlie wound healing.

1. Identify and control as best as possible the underlying causes.
2. Support patient centered concerns
3. Optimize local wound care.

#### Optimize Local Wound Care

wound healing have become more widely recognized and applied in clinical practice. Some of the advantages include the following:

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**Decreased dehydration and cell death. Increased angiogenesis., Enhanced autolytic debridement, Increased re-epithelialization. Bacterial barrier and decreased infection rates. Decreased pain. Decreased costs.**

wound healing is a complex physiological process that is dependent on a number of inter-related factors. Wound assessment and treatment should be based on an understanding of normal tissue repair and factors affecting the process.

### The process of wound healing

All tissues in the body are capable of healing by one of two mechanisms: regeneration or repair. Regeneration is the replacement of damaged tissues by identical cells and is more limited than repair.

### Local conditions for good wound healing

The provision of a supportive microenvironment at the wound surface is of the utmost importance when trying to maximize a wound's healing potential. Maintaining a controlled set of local conditions that is able to sustain the complex cellular activity occurring in wound healing should be the primary aim of wound management. 1. **The vascular response, 2. The inflammatory response, 3. The proliferative stage, 4. The formation of granulation tissue, 5. Wound contraction, 6. Re-epithelialization, 7. The maturation stage.**

### Ayurvedic view: Vrana (Wound)

Diagnosis: Exogenous Vs. Innate types V-, P-, and K-type wounds

Examination, Locations, Wound discharges, Prognosis, Treatment

Two types of wound have been listed earlier (see the section on enumeration of disorders).

They are: 1) Innate This arises from the doshas within the body.

2) Exogenous This is due to from external causes. -Ci25#5-6

Etiology of Exogenous Wounds: Blowing, binding, falling down, injury with fangs, teeth or nails, poisonous contact, fire, weapons. Uniqueness of Treatment of Exogenous Wounds:

'These are different from the innate ones in respect of treatment with incantations, anti-poison pastes, etc. etiology and partially symptoms.' -Ci25#8

Etiology of Innate-type Wounds: The dosas get vitiated in the **external passages** and thus cause wound.

**Table 2: About the Wound Types**

Etiology:	V-type	P-type	K-type
Symptoms:	it is stiff, hard, it has slow exudation, it has excruciating pain, piercing pain, it has throbbing, it has blackish-ness	Thirst, confusion Fever, sweating, burning sensation impurity, tearing foul smell, discharge	it has much sliminess, it is heavy it is unctuous, wet, it has only mild pain, it is pale of color, it has little fluid [it is slow to develop and slow to recover]
Treatment:	Saturation Intake of unction substance Unctuous fomentation and poultices, ointments and sprinklings	anointing and sprinkling with cold, sweet and bitter drugs intake of ghee purgation	anointing and sprinkling with astringent, pungent, rough and hot drugs lightening digestive measures

Treatment of [Inflammation/ When Inflammation is a Prodromal Sign]:

Where inflammation is a prodromal sign:

The physician should apply in the beginning of treatment: blood-letting (This will prevent manifestation of the wound). -Ci25#44

Treatment of Patients with Plenty Vs. Little Impurity:

Treatment of Patients with Plenty of Impurity: do evacuation - Ci25#45

Treatment of Patients with Little Impurity: do lightening measures -Ci25#45 (Gabriel Van Loon, 2003)

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Table 3: Drug ingredients

Drug	Ingredients	Tamil name	Sinhala Name	Part used
SivappuKukilThailam (mezhekuthailam)	<i>Sesamumindicum</i> Linn.	Gingili oil	Thalathel	Seed oil
	<i>Rubiaccordifolia</i> Linn	Manchisti	Welmathatta	Root
	<i>Hemidesmusindicus</i> Linn.	Nannari	Iramusu	Root
	Bee's wax	Then mezhuku	Mee-iti	Wax
	<i>Shorearobusta</i> Roxb.	Kungiliyam	Dummala	Resin
	Water	neer	Wathura	-
Panchathuvarpi (5Astringents)	<i>Ficusrecemosa</i> Linn	Atthi	Attikka	Bark
	<i>Ficusglobuosa</i> Willd	Iththi	Walnuga	Bark
	<i>Ficusbengalensis</i> linn	Aal	Nuga	Bark
	<i>Ficusreligiosa</i> Linn	Arasu	Bho	Bark
	<i>Syzygiumcumini</i> Roxb.	Naval	Dhang	Bark

(Ramanathan, 2000)

### Drug preparation:

1. Water – 3.2 l, 2. Gingili oil – 0.8kg, 3. Manchisti – 50g, 4. Nannari – 50g, 5. Bee's wax – 50g, 6.Kungiliyam – 50 g

**Method:**Grind Manchisti and Nannari. Grind powder mixed with water. Heat gingili oil and water mixed powder put into oil when come suitable oil stage, powdered kungiliyam and scraped bee's wax put into oil and filter the oil.Paste took from filtered remains of oil. (Ramanathan, 2000)

### Panchathuvarpi:

Atthi –*Ficusrecemosa* Linn, Iththi – *Ficusglobuosa*Willd, Aal –*Ficusbengalensis*linn, Arasu – *Ficusreligiosa* Linn, Naval - *Syzygiumcumini*Roxb.(Ramanathan, 2000)

Kasayam (Decoction):

Kudineersaraku – 01 palam-40g, Water – 16 palam -625ml, boiled to 1/6 part. (Ramanathan, 2000)

## IV. RESULTS AND OBSERVATIONS

Sex	No. of sample
M	31
F	11

Table 4: Sex of samples

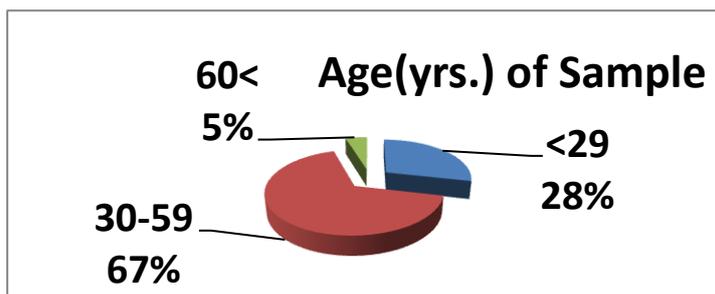


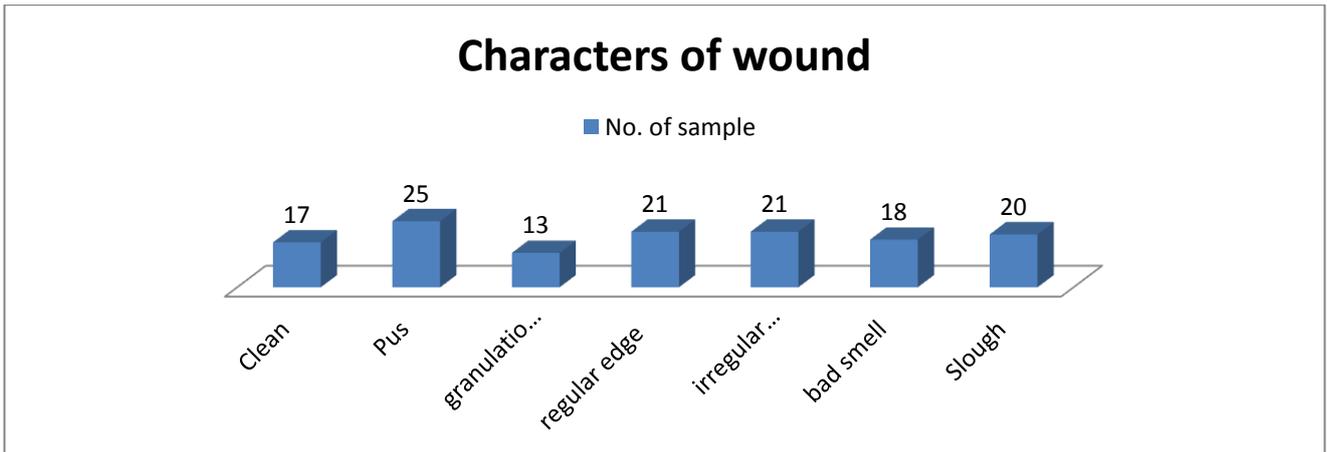
Chart 1: Age of samples

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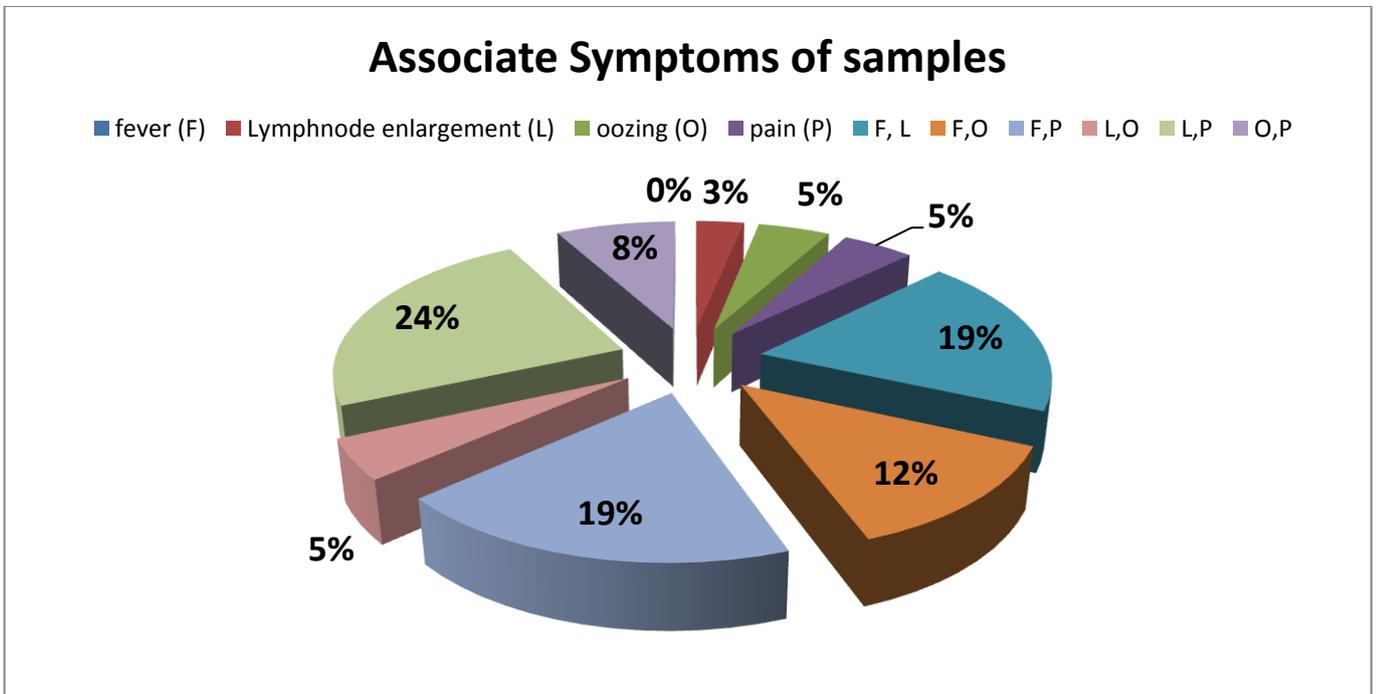
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**Chart 2: Characteristic of sample wounds ;** Character of wound of samples were; Clean-17, Pus -25, granulation tissue formation -13, regular edge -21, irregular edge -21, bad smell -18 and Slough-20



**Chart 3: Associate symptoms of samples**

Associate symptoms of samples were; no sample complaints only fever, 3% of only lymphnode enlargement, 5% of only Oozing, only pain and lymphnode enlargement and Oozing. 12% of fever with Oozing.19% of fever with lymphnode enlargement and fever with pain.24% of lymphnode enlargement and pain.

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No.	Characters of Wound	Initial assessment	Final assessment
01	Clean	positive	Clean
02	Pus	Negative	No pus
03	Granulation tissue formation	Less	More
04	Regular edge	Positive	Edge less
05	Irregular edge	Negative	Edge less
06	Bad smell	Negative	No odour
07	Slough	Negative	Removed

**Table 5: comparison of assessment of wound's characters**

Clean and granulation tissue formation were good sign of wound healing these were improve every visit and finally result was healed wound. Pus, regular edge, irregular edge, bad smell, Slough were removed and repair for healing of wounds by each visits with research drug package.

**Table 6:Assessment scores: (0-5)**

No.	Characters of Wound	0	1	2	3	4	5
01	Clean	fully	marked	moderate	mild	Very mild	unclean
02	Pus	No pus	Very mild	mild	moderate	marked	severe
03	Granulation tissue formation	fully	marked	moderate	mild	Very mild	Not present
04	Regular edge	No edge	Very mild	mild	moderate	marked	defined edge
05	Irregular edge	No edge	Very mild	mild	moderate	marked	undefined edge
06	Bad smell	No	Very mild	mild	moderate	marked	Unpleasant smell
07	Slough	No	Very mild	mild	moderate	marked	severe

**Table 7: Score Analysis**

No.		Initial	2 <sup>nd</sup> month	3 <sup>rd</sup> month	4 <sup>th</sup> month	Final
01	Clean	5	4	2	1	0
02	Pus	5	3	2	1	0
03	Granulation tissue formation	5	4	2	1	0
04	Regular edge	5	4	2	1	0
05	Irregular edge	5	4	2	1	0
06	Bad smell	5	3	2	1	0
07	Slough	5	3	2	1	0

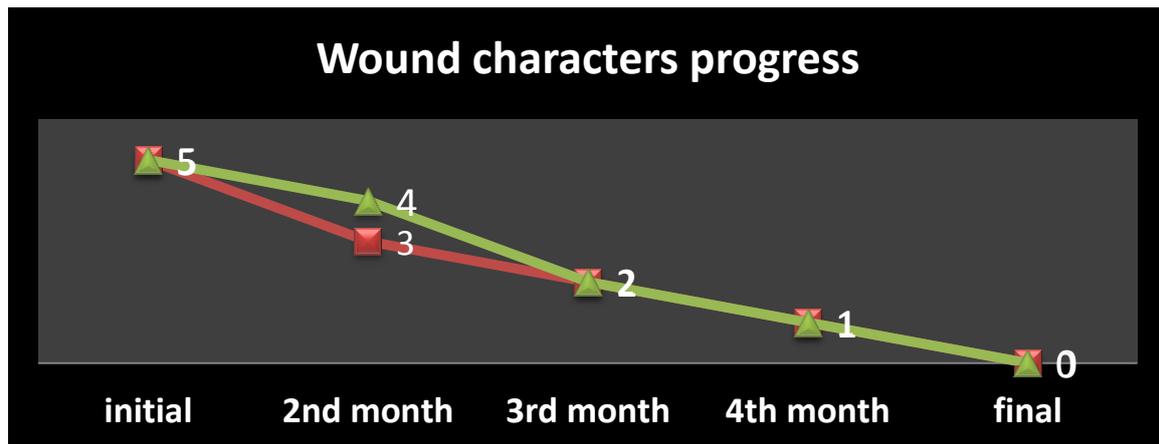
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Chart 4: progress of wound characters



### V. CONCLUSION

Ayurvedic hospital, vaharai management the wounds with wound dressing with herbal medicine successfully. therefore this research was done in there to evaluate efficacy of research dressing package as *sivappukulthila paste* with *panchathuvarpikasayam*. These were prepared by hospital labourers under my guidance. The *panchathuvarpikasayam* used as cleansing the wound area and *sivappukulthila paste* apply on wounds as healing paste. Research method was Clinical Trial, Research period was 04 months (September to December, 2013), Research samples was Random sample from OPD patients, total Samples was 42 and Research assessment was measurement and visual record of wound healing.

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Because of antimicrobial activity of *panchathuvarpikasayam* was act as good cleanser of wound debris. *sivappukulthila paste* acted good wound healer by promote regeneration or repair of wound tissues by reduced Inflammation, reorganized Proliferation, Granulation, Contracture and Remodelling naturally.

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