

# Traditional wound healing plants of Kasaragod district, Kerala state, India

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## Abstract

Folk medicine or traditional medicine is one of the natural health care systems have been practicing by all human cultures from the beginning of civilization. Biodiversity existing in each area also plays an inevitable role in the development of such healthcare practices. The organized healthcare systems like Ayurveda, Siddha, Unani *etc.* are developed as a result of empirical reasoning using rich biodiversity of our country. Kerala, the southern most tip of the subcontinent is also blessed with one of the most luxuriant vegetation and its diversity, its indigenous people has learned to utilize this rich biodiversity to meet the primary healthcare needs for the millennia. In the present communication authors throw light on the contribution of local health practitioners and indigenous knowledge holders in herbal medicine practice especially for wound healing. The present paper deals with 52 single plant remedies and 10 polyherbal formulations which are used by the local healers, traditional practitioners and TK holders of Kasaragod district for the treatment of various kinds of wounds. For each species botanical name, family, local name, parts used, method of preparation and dosage have been recorded.

**Keywords:** *Traditional, Wound healing, Kasaragod, Kerala.*

## Introduction

The mystic nature has hidden treasures of Biodiversity and use of herb to manage diseases dates back to the beginning of mankind. For many centuries man has been on the earth totally depending on green plants for his day to day needs especially for healthcare. India has a long history of the use of medicinal plant for various ailments. The role of Ayurveda, Siddha, Unani, Naturopathy *etc.* are remarkable. Rigveda and Atharvaveda, which dates back to 2000-1000 BC and several post vedic treatise *viz.* Charakasamhitha (100 AD) Sushruthasamhitha (800-100 AD) Dhanwanthari Nighantu (1200 AD) are the important earliest source of information on medicinal plants (Singh. *et al.* 1996). In addition to this, folk remedies for various ailments are conspicuous to modern scientific world,

because the vast reserve of knowledge is unwritten; they transfer from generation to generation orally.

In Kerala, this diversified system of traditional practices prevail among the rural communities since time immemorial. Even though modern medical systems are available, majority of the people are still depending on the rich local health tradition for treating various ailments especially cuts and wounds and also to remove the scars of wounds and associated problems. But this valuable oral health tradition is not yet documented systematically. The present study aimed to document the plants used for wound healing by the indigenous community / rural peoples of Kasaragod district of Kerala state. The rural communities have rich traditional medicare systems by utilizing the ambient natural resources. Meanwhile India is an agricultural based country,

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the rural communities frequently face some risky situations due to cuts and wounds whenever they are working in the field. In earlier days more than 90% of the villagers are deprived of the hospital facilities in their vicinity, so they have developed their own treatment system by trial and error methods.

Biodiversity is also playing a vital role in maintaining a variety of local treatment systems. Under AICRPE Project (All India Coordinated Research Project on Ethnobiology), ethnobotanical investigations carried out in tribal areas revealed that the tribes have specific knowledge about use of over 10,000 wild plant species which include 8,000 medicinal, 4,000 edible plants, 750 plants for material and cultural requirements 600 plants for fiber and cordages, 80 plants for ornamental 500 plants as fodder, 375 plants as pesticides, 300 plants for gum, resins, dyes and about 100 plants for incense and perfumes (Pushpangadan, 1995). There are so many plant resources used for treating fresh and chronic wounds. Radhakrishnan & Pandurangan (2000) reported the plants used for cuts and wounds prevailed in various parts of Kerala. The treasure of knowledge are systematically documented and validated by many experts. Nayak *et al.*, (2007) proved the wound healing activity of *Carica papaya* by *in vitro* means. Sini *et al.* (2010) reported the wound healing activity of *Kaempheria rotunda* L. and Kumara *et al.* (2007) made a review of wound healing plants of India. In this background the present topic 'Traditional Wound Healing Plants of Kasaragod District, Kerala State, India' have been selected for the detailed study of the location specific wound healing plants.

## Materials and methods

Frequent field visits were conducted in selected villages of Kasaragod district of Kerala State and gathered information about traditional/indigenous knowledge on detailed application and administration of plant resources for healing wounds. Data sheets and questionnaires were used for data collection which

includes name and age of informant, place, local name of plants, botanical name, family and specificity in collecting useful parts, detailed method of drug preparation, specificity of dosage and administration. Specimens for herbarium purpose were also collected and processed by wet method (Jain and Rao, 1977) and made into herbarium for future reference and identified by using authentic flora (Gamble, 1915) and Nayar *et al.* (2006). Photographs were also taken for identification and authentication.

The plants are enumerated alphabetically and given Latin name first followed by family, local name and parts used. Medicinal plant species are categorized as single and polyherbal formulations and description about preparation, administration and dosage of the drugs has also given.

## Enumeration

1. ***Abrus precatorius*** L. (Leguminosae)
 

Local name	: Kunni
Parts used	: Leaves
Method of preparation	: Fresh leaves crushed and expressed juice is mixed in water.
Dosage	: Apply 6- 8 drops, twice daily externally on fresh cuts.
2. ***Acalypha indica*** L. (Euphorbiaceae)
 

Local name	: Kuppameni
Parts used	: Leaves
Method of preparation	: Fresh leaves crushed and expressed juice is mixed in water.
Dosage	: Apply 5ml thrice daily on fresh cuts externally.
3. ***Aegle marmelos*** (L.) Corr. (Rutaceae)
 

Local name	: Bilwathre/Kuvvalam
Parts used	: Leaves
Method of preparation	: Fresh leaves ground in tender coconut water to paste.
Dosage	: Apply 4-5gm thrice daily on fresh cuts.
4. ***Aloe vera*** (L.) Burm. f. (Xanthorrhoeaceae)
 

Local name	: Nolidara/Kattarvazha
Parts used	: Leaf pulp

- Method of preparation : Remove the outer skin of the fresh leaf and scrape the pulp.
- Dosage : 5 gm twice daily on fresh cuts.
5. *Alstonia scholaris* (L.) R. Br. (Apocynaceae)  
 Local name : Ezhilampala  
 Parts used : Leaves  
 Method of preparation : Leaves are shade dried and pounded to fine powder.  
 Dosage : 5gm thrice daily for 7 days on chronic wounds and sores.
6. *Andrographis paniculata* (Burm. f.) Wall. ex Nees (Acanthaceae)  
 Local name : Nilavevu  
 Parts used : Leaves  
 Method of preparation : Fresh leaves ground to paste.  
 Dosage : Apply 5gm thrice daily on fresh cuts externally.
7. *Aristolochia indica* L. (Aristolochiaceae)  
 Local name : Eeswarberu/Urithookki  
 Parts used : Tender leaves  
 Method of preparation : Fresh tender leaves are crushed and expressed juice is taken.  
 Dosage : Apply 5ml externally on the affected parts against wounds.
8. *Biophytum sensitivum* (L.) DC (Oxalidaceae)  
 Local name : Mukkutti  
 Parts used : Leaves  
 Method of preparation : Fresh leaves crushed and expressed juice is taken.  
 Dosage : Apply 2 or 3 drops in eyes against fresh cut on the eyes.
9. *Bixa orellana* L. (Bixaceae)  
 Local name : Kumkumam  
 Parts used : Flower  
 Method of preparation : Fresh flowers ground to paste.  
 Dosage : Apply 10gm twice daily on fresh cuts externally.
10. *Getonia floribunda* Roxb. (Combretaceae)  
 Local name : Marsadaballi/Pullanji  
 Parts used : Leaves
- Method of preparation : Fresh leaves are wet ground to paste.
- Dosage : Apply 5gm thrice daily on fresh cuts externally.
11. *Carica papaya* L. (Caricaceae)  
 Local name : Omakka  
 Parts used : Latex  
 Method of preparation : Collect fresh latex from the fruit surface.  
 Dosage : Apply 2-5 drops on chronic wounds externally.
12. *Centella asiatica* (L.) Urban (Apiaceae )  
 Local name : Ondelaka/Kodakan  
 Parts used : Leaves  
 Method of preparation : Fresh leaves ground to paste.  
 Dosage : Apply 5-10gm thrice daily on fresh cuts externally.
13. *Clerodendrum infortunatum* L. (Lamiaceae )  
 Local name : Vattamathu/Peruvalam  
 Parts used : Tender leaves  
 Method of preparation : Fresh tender leaves ground to paste.  
 Dosage : Apply 5gm thrice daily for three days on fresh cuts externally.
14. *Cocos nucifera* L. (Arecaceae)  
 Local name : Thengu  
 Parts used : Mesocarp of the fruit/ husk fiber  
 Method of preparation : Dried fiber burned to ash and mixed in coconut oil.  
 Dosage : Apply 2gm thrice daily on fresh cuts externally.
15. *Curcuma longa* L. (Zingiberaceae)  
 Local name : Manjal, Arasina  
 Parts used : Rhizome  
 Method of preparation : Fresh rhizome is ground to paste.  
 Dosage : Apply 5gm thrice daily on fresh cuts externally.
16. *Cyathula prostrata* (L.) Blume (Amaranthaceae)  
 Local name : Cherukadaladi  
 Parts used : Whole plant

- Method of preparation : Fresh whole plant crushed and boiled in coconut oil as medicated oil.
- Dosage : Apply on fresh cuts for 3-4 days.
21. *Cynodon dactylon* (L.) Pers. (Poaceae)
- Local name : Garike hullu/Karukapul-lu
- Parts used : Whole plant
- Method of preparation : Fresh whole plant crushed and expressed juice is boiled and concentrated in coconut oil.
- Dosage : Apply 5ml drop by drop 3-4 times on chronic wounds externally.
18. *Emilia sonchifolia* (L.) DC. (Compositae)
- Local name : Muyalcheviyan
- Parts used : Whole plant
- Method of preparation : Fresh whole plant crushed and expressed juice is boiled and concentrated in coconut oil.
- Dosage : Apply 5ml drop by drop 3-4 times on chronic wounds externally.
19. *Entada rheedii* Spreng. (Leguminosae)
- Local name : Parandavalli, Pallakkaya
- Method of preparation : Fresh stem bark crushed and expressed juice is mixed in 5-10 drops of water.
- Dosage : Apply 5-10 drops twice daily thrice daily on fresh cuts externally.
20. *Euphorbia tirucalli* L. (Euphorbiaceae)
- Local name : Kallichedi
- Parts used : Latex
- Method of preparation : Fresh latex is heated along with 10ml coconut oil.
- Dosage : Apply 5ml once daily on chronic wounds externally.
21. *Ficus racemosa* L. (Moraceae)
- Local name : Athi
- Parts used : Root
- Method of preparation : Fresh juice obtained from the root is applied on wounds drop by drop as Dhara.
- Dosage : 10ml once daily against chronic wounds.
22. *Gmelina arborea* Roxb. (Lamiaceae)
- Local name : Kumbil
- Parts used : Leaves
- Method of preparation : Fresh leaves crushed and expressed juice is mixed in water
- Dosage : 10ml thrice daily on fresh cuts externally.
23. *Gloriosa superba* L. (Colchicaceae)
- Local name : Menthonni
- Parts used : Tuber
- Method of preparation : Fresh tuber ground to paste.
- Dosage : Apply 3gm thrice daily against chronic wounds.
24. *Jasminum sambac* (L.) Aiton (Oleaceae)
- Local name : Mulla
- Parts used : Leaves
- Method of preparation : Fresh leaf ground to paste.
- Dosage : Apply 5gm thrice daily on fresh wounds externally.
25. *Jatropha curcas* L. (Euphorbiaceae)
- Local name : Kattavanakku
- Parts used : Latex
- Method of preparation : Collect the fresh latex from the stem.
- Dosage : Apply 3-5 drops thrice daily on chronic wounds externally.
26. *Kaempferia rotunda* L. (Zingiberaceae)
- Local name : Chengazhinir kizhangu
- Parts used : Rhizome
- Method of preparation : Fresh rhizome ground to paste.
- Dosage : Apply 5gm thrice daily on fresh wounds externally.
27. *Mallotus philippensis* (Lam.) Muell.-Arg. (Euphorbiaceae)
- Local name : Kurukootty
- Parts used : Fruit and seed

- Method of preparation : Fruits are shade dried and pounded to fine powder and is mixed with coconut oil.
- Dosage : Apply 3gm thrice daily on chronic as well as fresh wounds externally.
- 28. *Memecylon randerianum*** S.M. Almeida & M.R. Almeida (Melastomataceae)
- Local name : Wollekodi
- Parts used : Tender leaves
- Method of preparation : Fresh tender leaves crushed and expressed juice is collected.
- Dosage : Apply externally on the affected part against fresh cuts.
- 29. *Magnolia champaca*** (L.) Baill. ex Pierre (Magnoliaceae)
- Local name : Chempakam
- Method of preparation : Fresh root ground to paste.
- Dosage : Apply 2-3gm thrice daily on chronic wounds externally.
- 30. *Mimosa pudica*** L. (Leguminosae)
- Local name : Thottavadi, Nachikamullu
- Parts used : Leaves
- Method of preparation : Fresh leaves ground to paste.
- Dosage : Apply 5gm twice daily on fresh wounds, preferably in the early morning and at bed time.
- 31. *Moringa oleifera*** Lam. (Moringaceae)
- Local name : Muringa
- Parts used : Leaves
- Method of preparation : Fresh leaves crushed and expressed juice is taken.
- Dosage : Apply 5ml twice daily on fresh wounds, preferably in the early morning and at bed time.
- 32. *Myristica malabarica*** Lam. (Myristicaceae)
- Local name : Kattujathi
- Parts used : Mesocarp
- Method of preparation : Fresh mesocarp of the fruits ground to paste.
- Dosage : Apply 5gm thrice daily on chronic wounds externally.
- 33. *Nerium oleander*** L. (Apocynaceae)
- Local name : Arali
- Parts used : Latex
- Method of preparation : Fresh latex is collected.
- Dosage : Apply few drops directly on fresh wounds.
- 34. *Nyctanthes arbor-tristis*** L. (Oleaceae)
- Local name : Pavizhamalli
- Parts used : Leaves
- Method of preparation : Fresh leaves crushed and expressed juice is mixed in water.
- Dosage : Apply 5gm thrice daily on fresh wounds externally.
- 35. *Ocimum tenuiflorum*** L. (Lamiaceae)
- Local name : Kattuthulasi
- Parts used : Leaves
- Method of preparation : Fresh leaves crushed and expressed juice is collected.
- Dosage : Apply directly on wounds 4 times daily for 3-4 days.
- 36. *Olea dioica*** Roxb. (Oleaceae)
- Local name : Edana
- Parts used : Tender leaves
- Method of preparation : Fresh tender leaves rubbed.
- Dosage : Apply on the affected part against fresh cut.
- 37. *Pavetta indica*** L. (Rubiaceae)
- Local name : Pavatta
- Parts used : leaves
- Method of preparation : Fresh leaves ground to paste
- Dosage : Apply 5gm four times daily on fresh wounds externally.
- 38. *Pergularia daemia*** (Forssk.) Chiov. (Apocynaceae)
- Local name : Veliparuthi
- Parts used : Leaves

- Method of preparation : Fresh leaves ground to paste  
 Dosage : Apply 5-10gm twice daily on fresh wounds externally.
- 39. *Piper betel* L. (Piperaceae)**  
 Local name : Vettilla  
 Parts used : Leaves  
 Method of preparation : Fresh leaves ground to paste.  
 Dosage : Apply 5gm twice daily on fresh wounds externally.
- 40. *Ricinus communis* L. (Euphorbiaceae)**  
 Local name : Avanakku  
 Parts used : Tender leaves  
 Method of preparation : Fresh tender leaves ground to paste.  
 Dosage : Apply 5gm thrice daily on fresh and chronic wounds externally.
- 41. *Sida rhombifolia* subsp. *alnifolia* (L.) Ugbor. (Malvaceae)**  
 Local name : Kurunthotti  
 Parts used : Root  
 Method of preparation : Fresh roots ground in rice soup to paste  
 Dosage : Apply 5gm twice daily on fresh wounds externally.
- 42. *Spermacoce hispida* L. (Rubiaceae)**  
 Local name : Tharthaval  
 Parts used : Leaves  
 Method of preparation : Fresh leaves ground to paste.  
 Dosage : Apply 5gm thrice daily on fresh wounds externally.
- 43. *Firmiana simplex* (L.) W.Wight (Malvaceae)**  
 Local name : Thondi  
 Parts used : Root bark  
 Method of preparation : Fresh root bark ground to paste.  
 Dosage : Apply 5gm twice daily on fresh wounds externally.
- 44. *Helicteres isora* L. (Malvaceae) □** Local name : Erumakayyoola  
 Parts used : Root  
 Method of preparation : Fresh roots ground with-
- out adding water to paste  
 Dosage : Apply externally against chronic wounds.
- 45. *Syzygium cumini* (L.) Skeels (Myrtaceae)**  
 Local name : Njaval  
 Method of preparation : Fresh tender leaves ground to paste  
 Dosage : Apply 5gm thrice daily on fresh and chronic wounds externally.
- 46. *Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schult. (Apocynaceae)**  
 Local name : Nandiarvattam  
 Parts used : Latex  
 Method of preparation : Fresh latex is collected from the tender leaves  
 Dosage : Apply directly on fresh wounds externally.
- 47. *Terminalia paniculata* Roth (Combretaceae)**  
 Local name : Maruthu  
 Parts used : Stem bark  
 Method of preparation : Fresh stem bark crushed and expressed juice is collected.  
 Dosage : 10ml of expressed juice is mixed with 5ml of ghee; apply externally on the affected part against fresh cuts.
- 48. *Trichosanthes cucumerina* L. (Cucurbitaceae)**  
 Local name : Kattupadavalam  
 Parts used : Leaves  
 Method of preparation : Fresh leaves ground to paste.  
 Dosage : Apply 5gm thrice daily on fresh wounds externally.
- 49. *Cyanthillium cinereum* (L.) H.Rob.L (Compositae)**  
 Local name : Poovankurunthal  
 Parts used : Leaves  
 Method of preparation : Fresh leaves crushed and expressed juice is taken.  
 Dosage : Apply 2 or 3 drops in eye against fresh cut in eye.
- 50. *Vitex negundo* L. (Lamiaceae)**  
 Local name : Karinochi  
 Parts used : Leaves  
 Method of preparation : Fresh leaves ground to paste.

Dosage : Apply 5gm paste twice daily on chronic wounds externally.

**51. *Ziziphus mauritiana*** Lam. (Rhamnaceae)  
 Local name : Elantha  
 Parts used : Stem bark  
 Method of preparation : Fresh stem bark ground to paste  
 Dosage : Apply 5gm thrice daily on chronic wounds ex-

**52. *Ziziphus xylopyrus*** (Retz.) Willd. (Rhamnaceae)  
 Local name : Kottamullu  
 Parts used : Leaves  
 Method of preparation : Fresh leaves ground to paste and applied on the affected part. Dosage : Apply thrice daily against fresh cut.

## Poly Herbal Formulations (PHF)

### PHF - 1

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Manihot esculenta</i> Crantz	Maracheeni	Euphorbiaceae	Tender Leaves
2	<i>Clerodendrum infortunatum</i> L.	Vattamathu/Peruvalam	Lamiaceae	Tender leaves

Tender leaves of both ingredients crushed and expressed juice has taken. Apply 5ml thrice daily on fresh cuts externally.

### PHF - 2

Sl.No.	Ingredients	Local name	Family	Part used
3	<i>Nicotiana tabacum</i> L.	Hogesappu	Solanaceae	Leaves
4	<i>Cynodon dactylon</i> (L.) Pers.	Garikeshullu/ Karukapullu	Poaceae	Leaves

All the ingredients ground to paste and apply externally thrice daily against fresh cuts.

### PHF - 3

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Ixora coccinea</i> L.	Kepla	Rubiaceae	Flower
2	<i>Vitex negundo</i> L.	Nechi	Lamiaceae	Leaves

All the ingredients ground to paste and apply externally against fresh cuts.

### PHF - 4

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Biophytum reinwardtii</i> (Zucc.) Klotzsch.	Mukkutti	Oxalidaceae	Whole plant
2	<i>Mimosa pudica</i> L.	Nachikamullu	Leguminosae	Whole plant

All the ingredients ground to paste and apply externally against fresh cuts.

### PHF - 5

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Ipomoea batatas</i> (L.) Lam.	Kereng, Genasu	Convolvulaceae	Tender leaves
2	<i>Basella alba</i> L.	Pasala keerai	Basellaceae	leaves

Both ingredients crushed and expressed juice is collected. Apply externally on the affected part against chronic wounds as well as fresh cuts.

### PHF -6

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Salacia reticulata</i> Wight	Ekanayakam	Celastraceae	Root
2	<i>Tectona grandis</i> L. f.	Thekku	Lamiaceae	Tender leaf

Dried and powdered form of root of ingredient 1 and fresh tender leaves of ingredient 2 are wet ground to paste and mixed in 20ml coconut milk. Add 1gm of burned hair and boiled in water and concentrated and apply externally on wounds.

### PHF -7

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Acorus calamus</i> L.	Vayambu	Acoraceae	Rhizome
2	<i>Curcuma longa</i> L.	Pachamanja	Zingiberaceae	Rhizome

Fresh rhizomes of both ingredients ground to paste. Apply externally against septic due to spines.

### PHF -8

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Acorus calamus</i> L.	Vayambu	Acoraceae	Rhizome
2	<i>Curcuma longa</i> L.	Pachamanja	Zingiberaceae	Rhizome
3	<i>Santalum album</i> L.	Chandanam	Santalaceae	Heart wood
4	<i>Piper betel</i> L.	Vettila	Piperaceae	Leaves

All ingredients wet ground to paste. Apply externally on the affected parts against wounds.

### PHF -9

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Euphorbia hirta</i> L.	Nelapala	Euphorbiaceae	Leaves
2	<i>Piper nigrum</i> L.	Kurumulaku	Piperaceae	Fruit

Fresh leaves of first ingredient is crushed and expressed juice is mixed with a pinch of pepper powder. Apply externally, thrice daily against fresh cuts/wounds.

### PHF -10

Sl.No.	Ingredients	Local name	Family	Part used
1	<i>Acorus calamus</i> L.	Vayambu	Acoraceae	Rhizome
2	<i>Santalum album</i> L.	Chandanam	Santalaceae	Heart wood
3	<i>Curcuma longa</i> L.	Manjal	Zingiberaceae	Rhizome

All the ingredients ground to paste and apply externally on the affected part against wounds to heal septic due to spines

## Result and Discussion

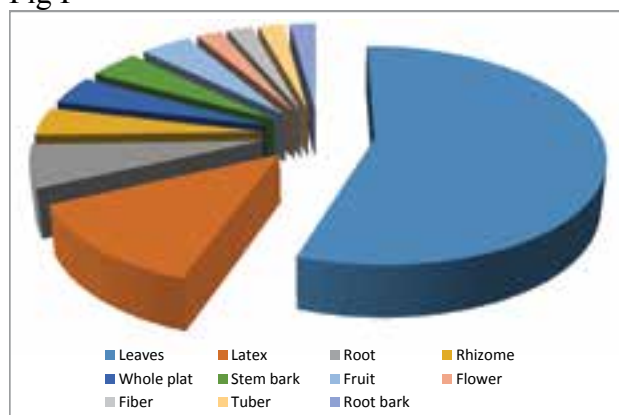
The study brought on record of 52 single and 10 combinations of plant remedies. Out of the total 64 plant



species Euphorbiaceae stands high in number (7) followed by Lamiaceae (5) Apocynaceae (4) Malvaceae, Leguminosae and Oleaceae and Rubiaceae (3), Combretaceae, Compositae, Oxalidaceae, Piperaceae, Rhamnaceae, Zingiberaceae (2 each) and other 24 families represents single species.

The total information was given by 36 informants with an age group of 40 - 80. From the Ethnobotanical survey it was noticed that the persons between the age group of 50-80 are more familiar with wound healing plants. Of the 64 plant species 38 ethnomedicinal plant species are applied or administrated through different media. It is found that water is the main and important media (80%), followed by 15 % and 5 % coconut water and coconut oil respectively. Almost all parts are used as officinal parts for the treatment such as leaves, stem, root, rhizome, tuber, flower, fruit, *etc.* Details are depicted in the fig I.

Fig I



While analyzing the data, the leaves are major parts used for treatment of wounds, which may be due to the continuous availability of drug source. Hence, the conservation of these plants is relatively easier than others. It is observed that 2 kinds of mode of administration is prevailing, internal and external. Among the single plant remedies, 97 % are used for external application and 3% used for internal application. In the combination drugs, 80% are external and 20% are internal administrations. Dhara is the main mode of external treatment for chronic

wounds.

## Conclusion

The present study aimed to document the traditional wound healing plants used by the rural communities of Kasaragod district of Kerala state. During the course of the study, information on 64 plant species used for healing treatments was documented. Among this, leaves are widely used followed latex. 97% of the drugs are used for external application and water is the major medium used. The informants with the age group of 50-80 are capable of giving most of the information. These local inhabitants have a strong faith in traditional medicine and are well versed with the utilization of plants of their surroundings through trial and error methods. They are using the preparations from time immemorial without knowing their chemical constituents. The collection, identification and documentation of ethnomedicinal data on biological resources are inevitable steps for bio-prospecting. To understand the therapeutic potential of the traditional medicine, there is a need for more studies of traditional health care practices through Pharmacological and clinical interventions.

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