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The Efficacy of Murivenna Taila Dhara in The Management of Bhagna: A Comprehensive Review

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ABSTRACT: -

Aacharya Sushruta has mentioned detailed diagnosis and management for all traumatic orthopedic injuries under the heading of *Bhagna(*fracture*)* and *also* explained *Bhagna* treatment in *Chikitsasthana*. As *Bhagna (*fracture) is generally an emergency condition, so before going to main principle of *Bhagna* treatment, first we need to reduce the local swelling and inflammation and pain immediately. According to *sushruta* it can be done by *Parisheka* and *Alepana*. Here main focus needed on *parisheka*, specially on *Dhara* which is a type of *parisheka*. The term Dhara we can define as pouring liquid medium in a thin continuous stream over the body or affected area. *Murivenna Taila* can be a good choice in this direction. *Murivenna taila* is a commonly used *anubhuta* yoga which contains *Kumari,Palandu, Paribhadra, Karanjpatra, Madangandhi, Thamboolpatra, Shigrupatra, Shatavari, Kanji,* and *coconut oil.*

KEYWORDS: *Bhagna, Parisheka, Dhara, Alepana, Murivenna taila.*

I. INTRODUCTION:

Man's birth partner trauma has always plagued him. Man has been aware of bone injuries since ancient times, just like any other injury to tissues. Nonetheless, he has persevered heroically, as seen by his lengthy survival journey from his origins—that is, when he was very uncivilized—to his current stage of sophistication and civilization. However, skeletal injuries are becoming more common in all age groups in the current era, which causes patients, their families, and the state to suffer financial, social, psychological, and physical losses.

Fracture is a multifaceted pathology and its judicious management requires a rational and holistic approach. Principle aim of management of fracture is to restore the normal or near to normal structural integrity and physiology of the fractured part, at the earliest, without complications and with minimal complications [1].

Modern medical science has achieved significant advancement in the management of fractures. Similarly, Ayurveda has comprehensively described the fundamental principles of fracture management such as first aid, reduction, immobilization, and rehabilitation, many of which have been adopted by modern medicine. Along with local mechanical management, Ayurveda emphasizes adjuvant therapies including oral medications and Panchakarma. Acharya Sushruta has elaborately explained the diagnosis and treatment of fractures under *Bhagna Chikitsa* in *Chikitsasthana*, with the primary aim of restoring normal structure and function at the earliest with minimal complications. As *Bhagna* is an emergency condition, immediate reduction of pain, swelling, and inflammation is essential before definitive treatment, which Acharya Sushruta advocates through *Parisheka* and *Alepana*. In this context, special emphasis is placed on *Parisheka*.

Parisheka is a therapeutic procedure in which a liquid medium such as *Kwatha, Taila, Ghrita, Takra,* or *Mansa Rasa* is poured in a thin, continuous stream over the body or affected part. Acharya Charaka described *Parisheka* as one of the thirteen types of *Sagni Swedana*, while Acharyas Sushruta and Vagbhaṭa classified it under Drava Sweda. Acharya Vagbhaṭa also included *Parisheka* under *Murdhni Taila*, highlighting its enhanced efficacy. As it is performed using *Sneha dravyas, Parisheka* provides dual benefits of *Snehana* and *Swedana*, forming an important *Bahirparimarjana Chikitsa*. Its therapeutic action depends on the drug

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used and duration, and it is useful in various *Doṣha* conditions. *Parisheka* exhibits stimulant, relaxant, analgesic, and cleansing effects, with studies suggesting its role in neurohormonal regulation. Traditionally, *Murrivenna* Taila is commonly used in South India for *Abhighataja Shula.*

The name Murrivenna comes from two Malayalam words,'Murivu'-meaning, wound and 'Enna'- meaning, *taila* (oil). Hence Murrivenna is oil that helps in healing the wound. Murrivenna *taila* is an *Anubhuta Yoga* that is mentioned in Pharmacopeia of Govt. of Ayurveda college pharmacy Trivandrum, Kerala[2]. This herbal oil preparation is used in the form of *Dhara,Pichu,Taila-droni* and *Bandhana*. *Murivenna taila* which contains *Kumari,Palandu, Paribhadra, Karanjpatra, Madangandhi, Thamboolpatra, Shigrupatra,Shatavari,Kanji,*and *coconut oil*. *Murivenna taila* is clinically proven for bandaging fractures, dislocation, sprain and soft tissue trauma. The study has been designed to study the pharmacokinetics of *Murivenna taila* and to assess the efficacy of *Murivenna taila Dhara* in the management of *Bhagna*.

AIM :- To study the review of *Murivenna Taila Dhara* effect as an emergency treatment in *Bhagna*.

OBJECTIVES: -

1. To study pharmacokinetics of *Murrivena Taila.*
2. To study about *Bhagna*(Fracture).
3. To study the effect of *Murrivena* Taila *Dhara* over *Bhagna.*

II. MATERIALS & METHOD: -

The pharmacokinetics of *Murrivena* Taila is critically studied for its scientific validation. The Ayurvedic classics, online journals, research articles were thoroughly reviewed for compiling the data about *Bhagna Dhara*, & its effect over *Bhagna*.

1.Review of *Bhagna*
2.Review of *parisheka*
3.Review of *Murrivenna Taila*.

1.Review of Bhagna

Nirukti: -The word *'Bhanga'* means break or loss of continuity, in a given material namely bone in the context. It is derived from the Sanskrit root *'Bhanjo-Amardane'* i.e., the loss of continuity by means of pressure. The loss of continuity of bone resulting from extrinsic forces is known as *Bhanga*. The word *Bhagna* is also used synonymously [3].

Paryaya **:-***Bhagna, Bheda, Bhedana, Bhanjana, Vibhanga*

History of Fracture Classification: -

Knowledge about fracture classification system has been existence as long as people identified fracture. There are few references given below: -

1. ***Vedic Kala***- The acceptably oldest recorded composition of the world, Rigveda, contains references of such bone injuries, amputations and transplantation of organs.
2. **Sushruta Samhita**- *Aacharya Sushruta* has mentioned detailed diagnosis and management for all traumatic orthopaedic injuries under the heading of *Bhagna(*fracture*)* and *also* explained *Bhagna* treatment in *Chikitsasthana*[4].
3. **Astanga Sangraha** (6th century AD)- A broad classification of Bhanga has been named as *Sandhi Bhanga* or *Sandhi Mukta* (injuries pertaining to joints) and *Asandhi Bhanga* (injuries pertaining to bones) [5].
4. **Astanga Hridaya** (7th Century AD)- has followed Astanga Samgraha [6].
5. **Madhav Nidana** (7th century AD) - classification done on the basis of exposure to fracture site to the external environment has been stated in *Svrana Bhagna* (open fracture) and *Avrana Bhagna* (closed fracture). Also, the division of fractures as *Kanda Bhagna* and *Sandhi Bhagna* is available.[7]
6. **Shadangdhara Samhita** (13th century AD) - It includes eight types of *Asthi Bhagna* involving fractures and dislocations both.[8]
7. **Bhava Prakasha** (16th Century AD)- *Bhagna* has been classified according to Sushruta Samhita viz. *Kanda Bhagna* and *Sandhi Bhagna*.[9]
8. **Charaka Samhita** (1000 BC)- In Charak Samhita,only a few points of general management of *Bhagna* (bones and joints injuries) have been described. Classification of Bhagna is not available in it.[10]

Etiology of *Bhagna*:- According to our Aacharyas,causes of *Bhagna* are *Patana, peedana, prahara, aakshepana, vyal mruga danshat, abhighataj* which are still seen in now a day.[11]

General sign and symptoms[12]: -

1.*Shwayathu Bahulya*
2.Spandana
3.Vivavartana
4.Sparsha Asahishnuta
5.Avapeedyamane Shabda
6.Vividha Vedana Pradurbhava
7.Sarva Avsthasu Na Shrama Labha

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Types [13]: -
According to Sushrut Samhita

Types

Sandhimukta- Dislocations

I. Uthpishta
II. Vishlishta
III. Vivarthita
IV. Avakshiptha
V. Athikshipta
VI. Theeryakshipta

Kandabhagna-Fractures

I. Karkataka
II. Aswakarna
III. Choornitha
IV. Pichitha
V. Asthichallitha
VI. Kandabhagna
VII. Majjanugata
VIII. Athipathita
IX. Vakra
X. Chinna
XI. Patitha
XII. Sputitha

Samprapti:-

Patana, Peedana,Prahara etc
↓ ***Nidana/HetuSevana***
Ushma enters the *Twak, sira*
↓ ***Sanchaya***
Vitation of *Rakta*
↓
Margavarodh of *Vata*
↓ ***Prakopa***
Vataprakopa
↓ ***Prasara***
Sira
↓ ***Vyakti***
Twak, Mamsa,
↓
Ruja, Shotha, Khanjta, Stambha
↓
Bhagna

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According to Vagbhat:[14]
1. *Sandhibhagna*
2. *Asandhibhagna*

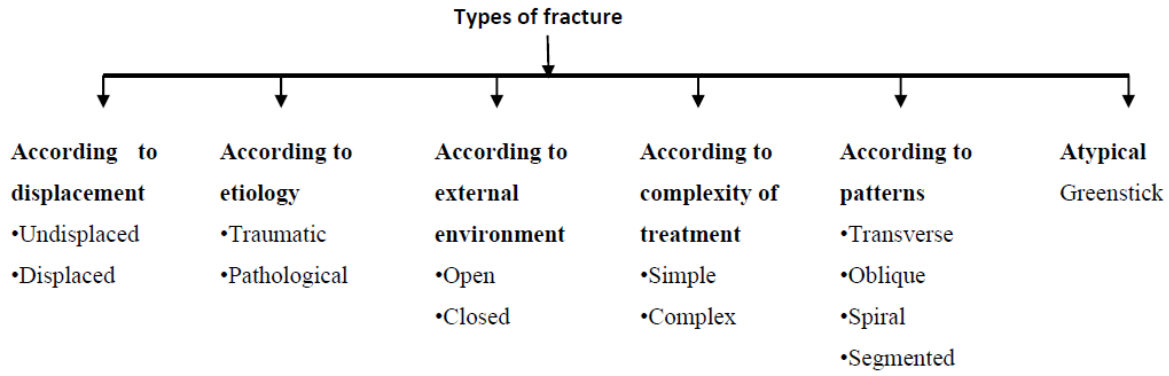
Bhagna Chikitsa[15]-
This includes:
1. Principles of *Bhagna Chikitsa*.
2. General Management of *Bhagna*.
3. Specific Management for different types of fractures.
4. Medicinal preparations for different kinds of fractures.
5. *Pathya- Apathya*.
6. Clinical criteria of fracture healing

Four Principles of Treatment mentioned by Sushruta:- 1. *Anchan* 2. *Pidana* 3. *Sankshep* 4. *Bandhan*

GENERAL TREATMENT OF BHAGNA: -
Instructed by Sushruta: - 1. *Pariseka* 2. *Lepa*

Fracture [16]: -
Etymology of fracture -The word fracture is derived from the latin term Fract which means discontinuity in a substance. From this word other terms like fracture, fragile, fraction, refraction etc. originated. Literally fracture means to break or discontinue. In medical science fracture means break or discontinuity of bone or cartilage.
Definition: -A fracture may be a complete break in the continuity of a bone or it may be an incomplete break or crack. Hence, fracture may also occur through cartilage, epiphysis and epiphyseal plate.

Classification of fracture [17]:-



Signs and symptoms of fractures
The signs and symptoms of fracture are as follows:
i) Inability to extend, flex, rotate or move forcefully
ii) Tenderness of the fractured area
iii) Severe pain
iv) Excessive swelling
v) Inability to use the limb
vi) Feeling of crepitation
vii) Different types of pain resulting in the lack of comfort in any position.

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Pathophysiology of fracture: -

Principles of Fracture treatment [18]

Local management of fracture

The primary aims of fracture treatment are

1. To attain sound bony union without deformity.
2. To restore the functions of the fractured limb.

This must be done as quickly as possible.

To achieve this, 3 steps are followed.

1. Reduction – it is to bring the fractured fragments in alignment without any displacement.
2. Retention – here the fractured fragments are kept immobilized, in the reduced position till union occurs.
3. Rehabilitation – it is restoration of function.

Review of *Parisheka*[19]:-

Synonym: *Seka, Pariseka, Secana, Parisecana, Dhara*

Definition: The term *parisheka* we can define as process in which pouring liquid medium (*Kwatha, Ghrita, Taila, Takra, Mansa Rasa* etc.) in a thin continuous stream over the body or affected area.

History: - *Acharya Charaka* mentioned *Parisheka* is one among 13 types of *Saagniswedana*. Both *Acharya Vagbhatta* and *Sushruta* clubbed *Parisheka* under *Dravasweda*. Also, *Acharya Vagbhata* accumulated all procedure namely *Abhyana, Seka, Pichu* and *Shirobasti*, which are more effective in the successive order and named as "*Murdhnitaila*".

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Types: Based on site of administration Seka is of three types

i. *Sirasseka*
ii. *Kayaseka*
iii. *Ekangaseka*

The specific nature of reducing the *Dosha* or *Vyadhi* can be brought about by altering the formulation. Thus, *Seka* provide extensive utility for various conditions, hence it is of great importance in the perspective.

Benefits of *Seka*:

Seka relieves fatigue, conciliates *Vata*, promotes rejoining of fractured bones and pacifies the pain caused due to injury, burns, hit or abrasions. The *Dhara* done using medicated *Ghrita* or *Taila* will enhance

- The firmness of mind and speech.
- Strength of the body
- Inclination to food
- Makes skin healthy
- Enhances sharpness of eyes, virility .
- Promotes *Dirghayu*.
- It reduces excessive body temperature.
- Induces good sleep & congenial status of mind.

Quantity of *SekaDravya*:

Kayaseka -11/2 *Prastha* (1152ml)

Depending on height and weight 1 *Prastha* (768ml), 11/2 *Prastha* (1152ml) or 11/4 *Prastha* (960ml) can be used.

Dharapatra:

Dharapatra is wide mouthed, round bottomed vessel having the capacity of 2 *Prastha*(1536 ml). It should be prepared of metals like gold, silver and others or even clay.

Dravya used for *Dhara*:

Dravya used for Dhara according to different states of *Doshas*. four types of *sneha* used in *Dhara* which are *Taila, Ghrita, Vasa* and *Majja*. In *Vata* predominant state *Tilataila* should be used. In *Pitta* or *Rakta* predominant condition or *Raktapitta* associated with *Vataroga – Goghrita* and *Tilataila* in equal proportion is used. In *Kapha* associated *Vataroga- Goghrita* 1part and *Tilataila* 2 part is used.

The Height for *Dhara*:

The *Dhara* over the head should be poured from height of 4 Angula (3 inch approximately) and to the body parts it should be done from a height of 12 Angula (9 inch approximately).

Procedure of Seka:

A square piece of cotton cloth, which can be contained in the fist, is dipped in the warm *SnehaDravya* and squeezed directing the liquid to flow along the thumb and fall over the part of the body. The compound of four Sneha or just *Tilataila* can be used in *Kevalavata* conditions. The *Dhara* should be poured in continuous stream without interrupting the flow it should not be done for greater or lower height and neither in a faster nor in slower mode.

Seka Kala:

- In *Ruksa* or *Pitta* associated *Vata* diseases, the treatment should be performed for about 2 muhurta (96 min).
- In *Kapha* associated conditions with *Snigdha* status, the treatment should be done for 1 *muhurta* (48 min) or else the procedure should be continued till the body perspires.
- The *Sneha* pervades through the hair follicles by three hundred *Matrakala* (2.4min). The *Sneha* traverses through the seven layers of skin by seven hundred *Matrakala* (16.8min) and by further six hundred *Matrakala* (100.8 min i.e. 1 hr & 40.8min) it reaches the *Raktadi* six *Dhatu*.
- *Kayaseka* should be performed for half *Yama* (one and a half hours). Thus, in each posture the *Seka* should be done for fifteen minutes. If the disease demands, the duration can be prolonged up to one *Yama* (3hours).

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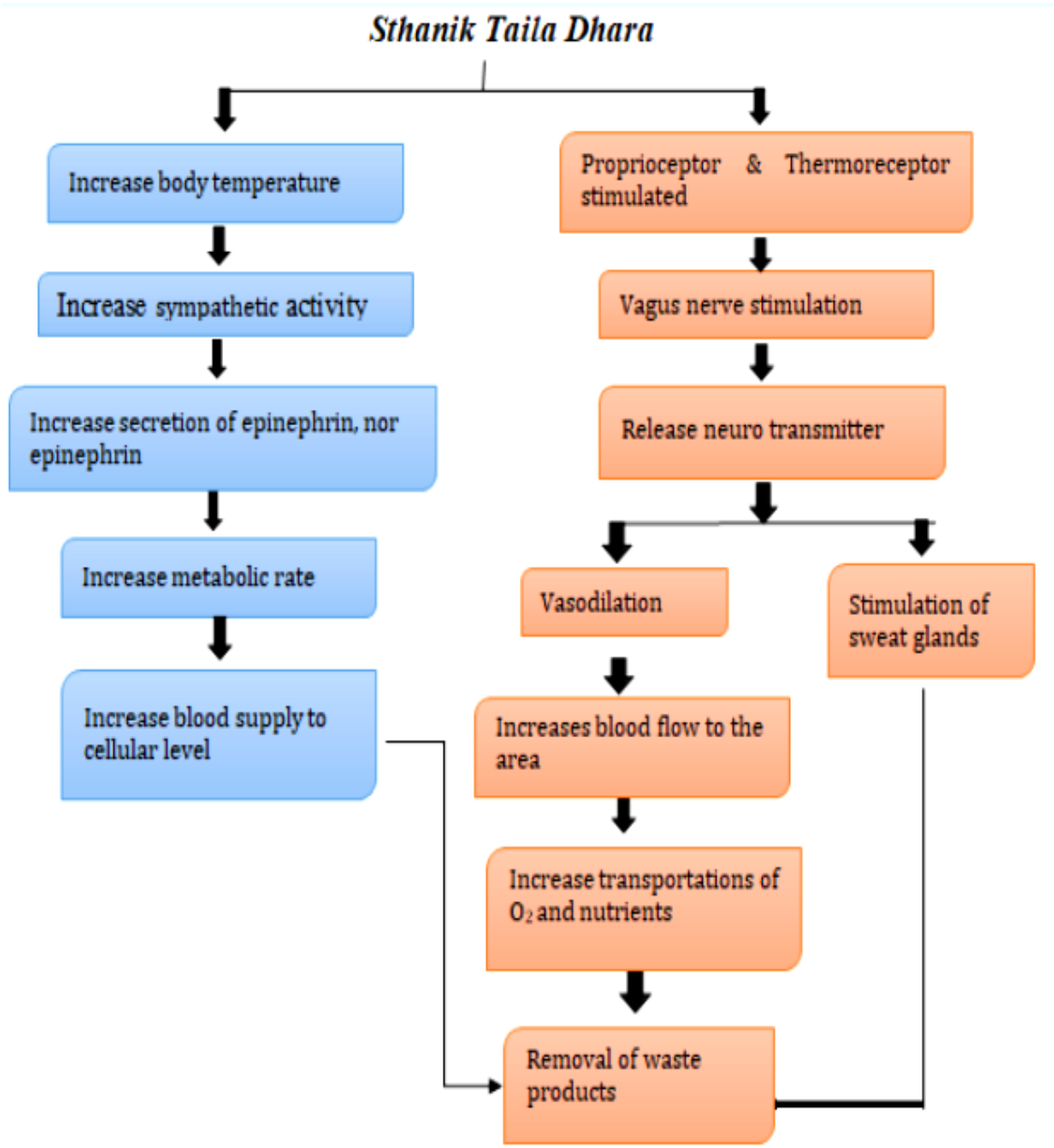
Mode of Action of *Parisheka*[20]: -



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Review of Drug: -

Table 1: *Rasa panchaka* of *Murivenna Taila*[21].

Sr.no.	Drug & Latin Name	*Rasa*	*Guna*	*Virya*	*Vipaka*	*Doshaghnata*
1.	***Karanja*** Pongamia pinnata (L.) Pierre	*Tikta, Katu, Kashaya*	*Laghu, Ruksha, Teekshna*	*Ushna*	*Katu*	*Kapha Vata shamana*
2.	***Kumari*** Aloe vera Linn.	*Tikta*	*Guru, Sookshma*	*Seetha*	*Katu*	*Vata Pitta shamana*
3.	***Tambul*** Piper betel Linn.	*Tikta, Katu*	*Vishada, Teekshna, Ushna*	*Ushna*	*Katu*	*Kapha hara*
4.	***Shigru*** Moringa oleifera Linn	*Tikta, Katu*	*Laghu, Ruksha, Teekshna*	*Ushna*	*Katu*	*Kapha hara*
5.	***Paribhadra*** Erythrina variegate Linn	*Katu, Tikta*	*Laghu*	*Ushna*	*Katu*	*Kapha hara*
6.	***Vasukam*** Spermococe hispida Linn	*Katu, Tikta*	*Laghu , Rooksha*	*Anushna seetha*	*Katu*	*Kapha pitta shamana*
7.	***Palandu*** Allium cepa Linn.	*Madhura, Katu*	*Guru, Sookshma*	*Ushna*	*Madhura*	*Kapha pitta shamana*
8.	***Shatavari*** Asparagus racemosus Willd.	*Madhura, Tikta*	*Snigdha*	*Seeta*	*Madhura*	*Kapha pitta shamana*

Research studies about ingredients of *Murivenna Taila*[21]: -

- ***Karanja***: - P. pinnata showed significant antimicrobial and wound healing property in experimental study. It possesses higher breaking strength and the wound healing property by its angiogenic as well as mitogenic potential. P. pinnata down regulates TNF-α and IL-6 by increasing the serum IL-10 concentration.
- ***Tambul*** :-Piper betel leaves extract showed significant wound healing in induced diabetic rats. This may due to the property to decrease the oxidative stress markers like malondialdehyde (MDA) and 11β HSD-1 levels and increase superoxide dismutase (SOD) levels2.
- ***Shigru*** **:-** The wound healing property (invitro) of ethyl acetate fraction of Moringa leaves showed that it promotes wound healing by the proliferation and migration (wound closure rate) in human normal dermal fibroblast cells.
- ***Paribhadra*****:-** The cell line anti-inflammatory studies of the ethanolic extracts of E. variegata bark showed effect in acute and chronic inflammation by inhibitory effect on PGE2 and TNF-α release respectively and having antimicrobial and anti-inflammatory properties.
- ***Palandu*** **:-** Experimental study showed that onion extract gel has significant effect to improve the appearance of scars like redness, softness and texture over excision site.
- ***Shatavari*****:-** According to the study conducted by Plangsombat N et al (2016) revealed liposomes of Asperagus racemosus have potent anti-inflammatory effect in the monocytic leukemia cell line THP-1 when used as transdermal and topical application.

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III. Observation & result:-

Properties of *Murivenna Taila*: - Properties of *Murivenna Taila* are: *Kaphashamaka, Vranaropaka, Pitta Shamaka, Krimihara, Dahaprasamana ,Kanduhara, Vedanasthapaka, Shothahara, Vranaropaka* and *Vranashodhaka*. So, on the basis of these properties the Mechanism of action of *Murivenna Taila* on *Bhagna* is described by following manner.

IV. DISCUSSION: -

Agantuja Vrana produced due to trauma is characterized by the instantaneous spread of warmth at the site of injury, leading to obstruction in the normal pathways of *Vata*. This obstruction results in vitiation of *Rakta*, causing *Margavarodha* and subsequent aggravation of *Vata*. The aggravated *Vata* manifests clinically as *Ruja* (pain), *Shopha* (swelling), *Khanjata* (lameness), and *Stambha* (stiffness). In exogenous disorders, pain is the primary feature followed by the involvement of *Tridoṣa*, whereas in endogenous conditions, the initial imbalance of *Vata, Pitta,* and *Kapha* subsequently leads to pain. Thus, *Vata* plays a pivotal role in the pathogenesis of traumatic wounds.

Murivenna Taila is prepared using coconut oil as the base, which possesses *Varnya, Dahashamaka, Pittashamaka, Shulaprashamana,* and *Vraṇaropaṇa* properties. Coconut oil also provides a *Snigdha* and *Guru* medium, facilitating deeper tissue penetration of the medicaments. The pharmacodynamic properties of *Murivenna Taila* such as *Snigdha, Guru,* and *Ushna* are antagonistic to the qualities of aggravated *Vata*. Consequently, *Murivenna* effectively pacifies *Vata* and alleviates pain. Its *Shothahara* action further aids in reducing inflammatory swelling. The presence of six drugs with *Ushna Virya* in Murivenna promotes local circulation, facilitates the resolution of *Shopha*, and supports tissue repair.

Modern pharmacological studies corroborate the traditional claims of *Murivenna* ingredients. Pongamia pinnata has demonstrated significant antimicrobial and wound healing activity through its angiogenic and mitogenic effects. Extracts of Piper betel leaves have shown enhanced wound healing in experimentally induced diabetic models. Moringa oleifera (Śigru) leaf extract has been reported to promote wound healing by enhancing fibroblast proliferation and migration in human dermal fibroblast cell lines. The ethanolic extract of Erythrina variegata bark exhibits notable anti-inflammatory effects in both acute and chronic inflammation models. Asparagus racemosus has shown potent anti-inflammatory activity in monocytic leukemia (THP-1) cell lines, particularly when administered via topical or transdermal routes. Collectively, these findings support the antimicrobial, anti-inflammatory, and wound healing potential of *Murivenna Taila.*

Application of Uṣṇa *Parisheka* with *Murivenna Taila* facilitates the clearance of *Srotavarodha* (micro-channel obstruction) and restores the functional balance of *Agni* at the local tissue level. The combined *Ushna* and *Snigdha* properties of the medicated oil pacify *Vata*, relieve obstruction, enhance nourishment of bones and joints, and accelerate the healing process. Thus, *Murivenna Taila* proves to be an effective therapeutic modality in the management of *Agantuja Vrana*, integrating classical Ayurvedic concepts with experimentally validated pharmacological actions.

V. CONCLUSION: -

Most of ingredients of Murrivena Taila is having *Katu Rasa, Teekshna Guna,Ushna Veerya,*and *Katu Vipaka* which shows *vedanashapaka, shothaghna, Tridosha Shamana* and *Ropana karma* which helps to reduce swelling, inflammation and pain immediately in *Bhagna*. Anti-inflammatory effect of *MurivennaTaila* has been proved experimentally and clinically, so it is concluded that this formulation can be used in day-to-day practice in emergency condition. Further analysis and study in this direction can be done.

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