

## CONCEPTUAL STUDY ON ROLE OF MAKKALHARA YOGA IN SUTIKA MAKKALA

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### ABSTRACT

*Sutika Makkala* is the post-delivery complication. Often seen in women who does not follows *Sutika Paricharya*. The cause behind this pain is vitiated *Vata*. *Apana Vayu* is responsible for the *Artava Niskramana* and also expel out *Mala*. Vitiated *Vata* if moves in a way opposite to its normal downward direction retains the *Mala (Dosha)* along with the retention of *Dushita Rakta* inside the uterus resulting the pain in abdomen. Different *Yoga* are mentioned by the *Acharya* in which *Achrya Vagabhatta* mentioned that *Makkalhar Yoga (Trikatu, Trijata, Dhanyak with Jirna (Purana) Gud in Astang Sangrah Sharir Stana*.

**KEYWORDS:** *Makkala, Trikatu, Trijata, Sutika.*

### INTRODUCTION

A woman who has just given birth to a child followed by expulsion of the placenta is called *Sutika*. Expulsion of the placenta is the criteria for the terminology “*Sutika*”.<sup>[1]</sup>

### Characteristic of *Sutika*

- ***Vata -Prakopa:*** - Due to *Pravahan* and *Dhatukshaya* .
- ***Dhatu-Kshaya:*** - *Rakta-strava, Rasa-Kshaya*.
- ***Agni-mandya:*** - Due to *Vata-Prakop* and *Dhatu-Kshaya*.
- ***Shoonnya-sharira:*** - Due to *Garbhaposhan* during pregnancy, physical stress of labour.

During pregnancy because of *Garbhaposhan* there is a additional demand of *Ahara* or nutrition to the pregnant lady. If it does not get fulfilled properly then lacunae remains and carry forwards to *Sutika avastha*. That is why *Sutika* also become prone to disease condition.

Because of stress during pregnancy, stress during labour by bearing down efforts. Because of actual blood loss during labour, *Dhatu*s are in lethargic status. Which leads to *dhatu, agni, bala kshaya*. This *dhatu kshaya* causes 'Shoonya sharira' at *Sutika*. This *Shoonya sharira* or malnourished condition make the women vulnerable to various types of disorders or diseases. These peculiarities also make the diseases difficult to treat (*Krichra Sadhya*).<sup>[2]</sup> The purpose behind "*Sutika Paricharya*" is to protect her from various diseases and her recovery from stress of pregnancy and labour as well as to ensure adequate and quality lactation for the neonate.

If *Sutika* does not pursue the *Sutika Paricharya* like *Ashwasan, Snehan, Mardan & Udar Peedan* (Pressed flanks and abdomen) followed by abdomen and flank are wrapped with cloths (*Paata Bandhan*) & by consuming beneficial *Ahara* and *Vihara* then she can fetch up in development of one of the 74 diseases occurring in *Sutika*.<sup>[3]</sup> *Makkalashoola* is one of them and a *Shool Pradhan Vyadhi* occurring in *Sutikaavastha*.

**AIM:** Conceptual study on the role of makkaalhora yoga in sutika makkala.

**OBJECTIVE:** Conceptual study of sutika makkala.

Conceptual study of makkalahar yoga.

### Literature review

The root word for *Makkala* is '*Makka*' which means 'to move' or 'to go'. It is a term used to denote pain produced due to *Vata* withholding *Shonita* in pelvic region causing incomplete evacuation of *Prajanana Shonita* in the *Sutika Avastha*.<sup>[4]</sup> *Dalhana* and *Sharangadhar* comments that the *Makkalla* occurs during pregnancy and puerperium both stages. *Acharya Vagbhatta* mentions that the pain occurring in the bladder head, and abdomen in *Sutika* is known as *Sutika Makkalla*. *Acharya Bhavaprakasa* mentions in *Yoni-rogadikar* that in a *Prasuta Stree Vata* is aggravated due to *Ruksha* (dryness), *Ushan* (hot), *Tikshan* (pungent) drug obstructs blood at the umbilicus, flanks, bladder causing glandular growth with pain in umbilicus, bladder and abdomen and also cause distension or flatulence in *Pakwasaya*,

retention of urine (*Mutrasanga*). *Shri Govind Das in Stree Rogadikar* said that pain in cardiac region, head and bladder in a *Sutika* is known as *Makkalla*.

### Cause of *sutika makkala*<sup>[5]</sup>

The vitiated *Vata Dosha* and *Shonita* are the main causative factors of *makkalla*. *Vata Dosha* gets aggravated by its *Ruksha Guna* due to these following factors.

***Ruksha sharira*** – Due to labour strain vitiation of *Vata* occurs which causes excessive dryness i.e. *Ruksha sharir* which creates weakness of the body tissue.

***Avishodhita rakta***- Proper expulsion of *Sanchit Rakta* does not occur leading to retention. Because of *Raktasanchiti* (collection) there is *Maragavarodh* for *Anuloman*. *Vata* vitiates causing *Shool*. as a result, *Sutika* complaints pain in abdomen.

### Cause of *shool*

*Adhovata*, *Malamutravrodha* causes *shool* more.

***Ahara*** – *Atibhojana*, *AJirna*, *Adhyashana*, *Ayasa*, drinking excessive water during hunger, excess intake of germinating seed or *Viruddha Shuska Mamsa Sevana*. Other cause like *Kshobha*, *Trasa*, *Amadosha* all these lead to *Vata Prakop*.

### Etiopathogenesis of *sutika makkala*

#### Normal *sutika*

*Sanchit shonita* in *Garbhashya* (uterus) and *Artavavaha Strotas*



*Anulomana gati* of *Vata* (*Apana vayu*)



Causing revert back to uterus in its normal position

#### *Sutika makkala*

*Sutika* does not follow *sutika paricharya* and as *kh-vaigunya* (empty space) present in *Garbhashya* (uterus) vitiated *Vata* along with *Rakta* accumulated (*Stanashanshriya*) in *Garbhashya*



Form a glandular or granular (*Granthi*) structure in uterus below the umbilicus



*Pratiloma Gati* of *Vata* (*Apanavayu*) as a result *Sutika* complains of abdominal pain.

### Clinical feature<sup>[6]</sup>

The vitiated *Vata* not only retains the *Dushta Rakta* but also *Vata*, *Mutra* and *Mala*, causing *Adhmana* and *Mutrasanga* which also contributes to pain in these particular sites

Pain in umbilical region & bladder region.

Abdominal Pain

Flatulence

Retention of urine.

### Modern view

In modern *Sutika Makkala* can be compared with “After pain”.it is the infrequent, spasmodic pain felt in the lower abdomen after delivery for a variable period of 2-4 days. Cause behind this pain is the presence of blood clots or bits of placenta it leads to hypertonic contraction of the uterus in an attempt to expel them out. The mechanism of pain is similar to cardiac anginal pain induced by ischemia. Management includes massaging the uterus with expulsion of clots followed by administration of analgesic and antispasmodic.<sup>[7]</sup>

Pain in abdomen also due to sub involution of uterus in which involution of uterus is impaired. The aggravating factors for sub involution of uterus are retained product of conception and uterine sepsis as a result abnormal lochia discharge present either excessive or prolonged, irregular cramps like pain in abdomen present.

Sign of sub involution of uterus: uterine height is greater than the normal for the particular day of puerperium. It feels boggy and softer.<sup>[8]</sup>

### Material

In Ayurvedic texts, *Acharyas* mentioned & explained various *yogas* for *Sutika*. In that particular stage these *yogas* were considered as a routine protocol of treatment after delivery. It helps in *Sutika* as a *Garbhasyashodhan*, *Vatanuloman* and *Sukshammalapachan*. So that there is no retention of clots or *Shonit*. *Pachan* of excessive *Stravas* occurs and no *Margavarodh* for *Vata* to vitiate. Here considered one of the *yoga* from *Astang Sangaraha* which contents are *Pippali*, *Maricha*, *Shunthi*, *Ela*, *Twak (dalchini)*, *Tejpatta*, *Dhanyak*, *Jirna (purana) gud*.<sup>[9]</sup>

Drug	Properties
<b>Pippali</b>	<p><i>Rasa: Katu.</i>  <i>Guna: Laghu, Snigdha, Tikshan.</i>  <i>Virya: Anushansheta.</i>  <i>Gana: Charak- Kashhara, Hiikanighran, Deepaniya, Shoolparshmana, Tripatighan. Sushrut- Pipalyadi, Udravbhagahar, Shirovirechan. Pippali Moola- Garbhasya Sankochak.</i><sup>[10]</sup>  <i>Deepaniya: improves digestion strength so helpful in Agnimandya stage of Sutika and resolves the symptom of flatulence.</i>  <i>Shoolprashman: useful in pain relief that helpful in abdominal pain.</i>  <i>Traptighan: reliefpseudosatiation.</i><sup>[11]</sup>  As per its <i>Snigdha Guna</i> it act as <i>Vata Shamak</i>.</p>
<b>Maricha</b>	<p><i>Rasa: Katu.</i>  <i>Guna: Laghu, Tikshan.</i>  <i>Vipak: Katu. Virya: Ushna.</i>  <i>Gana: Charak- Deepaniya, Shoolparshman, Krimighan. Sushrut – Pipalyadi, Triushan.</i>  <i>Doshakarma: Vata kaphashamak.</i><sup>[12]</sup>  <i>Deepaniya: improves digestion strength.</i>  <i>Shoolprashman: relieves pain.</i><sup>[13]</sup>  <i>Vayunivaryati: useful in Vata related disorder like bloating.</i>  As per its <i>Ushna Virya</i> it act as <i>Vatashamak</i>. And its <i>Katu rasa</i> and <i>tikshan Guna</i> act as <i>Kaphashamak</i>.</p>
<b>Shunthi</b>	<p><i>Rasa Katu.</i>  <i>Guna: Laghu, Snigdha.</i>  <i>Vipak: Madhur.</i>  <i>Virya: Ushna.</i>  <i>Dosha Ghanta: Kaphavata Shamak.</i>  <i>Gana: Charak – Triptighan, Ashoghan, Deepaniya, Shoolprasmana, Trishnanighran. Sushrut – Trikatu, Pipplyadi. Bhavprakash – Panchkol, Shadushan.</i><sup>[14]</sup></p>
<b>Ela</b>	<p><i>Rasa: Katu, Madhur.</i>  <i>Guna: Laghu, Ruksha.</i>  <i>Vipak: Madhur.</i>  <i>Virya: Sheeta.</i>  <i>Gana: Charak- Katuskand, Swashhara, Angamardaparshmana. Sushrut – Eladi.</i>  <i>Dosha Ghanta: Tridoshahara.</i><sup>[15]</sup></p>
<b>Twak (dalchini)</b>	<p><i>Rasa: Katu, Tikta, Madhur.</i>  <i>Guna: Laghu, Ruksha, Tikshan.</i>  <i>Vipak: Katu. Virya: Ushna.</i>  <i>Gana: Sushrut – Eladi.</i>  <i>Dosha Ghanta: KaphaVata Shamak.</i><sup>[16]</sup></p>
<b>Tejpatta</b>	<p><i>Rasa: Katu, Tikta, Madhura.</i>  <i>Guna: Laghu, Ruksha, Tikshan.</i>  <i>Vipak: Katu. Virya: Ushna.</i>  <i>Gana: Sushrut – Eladi.</i>  <i>Doshaghanta: Kaphavata shamak.</i><sup>[17]</sup></p>
<b>Dhanyak</b>	<p><i>Rasa: Kasaya, Tikta, Madhura, Katu.</i></p>

	<p><i>Guna: Laghu, Snigdha.</i>  <i>Vipak: Madhura.</i>  <i>Virya: Ushna.</i>  <i>Gana: Charak – Trishna Nighran, Sheetaparshamana. Sushrut – Guduchyadi.</i>  <i>Doshaghanta: Tridoshhara.</i><sup>[18]</sup></p>
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### Dose and Duration

Trikatu (pippali, maricha, Shunthi) churna 250 mg, trijata (twak, ela, Tejpatta) 250 mg, dhanyak 500 mg and jirna gud as per requirement should be taken at the 2<sup>nd</sup> day of normal vaginal delivery to 5<sup>th</sup> day of normal vaginal delivery twice a day in early morning.

### Phytochemical action

#### *Pippali*

**Chemical composition:** *Pippali* contain piperine, ethanol, piplasterol.

Ethanol extracts of *Piper Longum* possess anti-inflammatory, analgesic and antipyretic activities. (S Sireeratawong et al. ISRN Pharmacology 2012.)

#### *Maricha*

Chemical composition: *Maricha* contains piperine, ethanol, hexane, piperidine.

In piper nigrum piperine, ethanol and hexane extract show the analgesic and anti-inflammatory action. (analgesic and anti-inflammatory activities of piper- nigrum pub med. 2014).

#### *Shunthi*

Chemical composition: *Gingirols, Paradols, Shagol, Diaryheptanoid.*

Its contents of gingerols and diaryheptanoid which are antiprostaglandin compounds exhibit anti-inflammatory activity. Effect on gastrointestinal tract includes carminative appetite stimulant and amelioration of nausea associated with morning sickness effect. Having also antioxidant effect due to its contents of polyphenols. (Nemet A.Z.Yassin et al Der Pharmacia letter, 2012, 4 (1)264).

#### *Ela*

It contains terpineol, terpinene, cineol, limonene, sabinene. These are myrcene (1,4), d-limonene, methylheptenone (0.03), beta pinene, linalool acetate, terpinyl acetate, alpha terpinol. It is act as anti- inflammatory activity, analgesic activity.

(Mehjabeen et al./int.j pharm.phytopharmacol.Res.2015; 4(6)302.)

### **Twak (dalchini)**

Latin name: *Cinnamomum zeylanicum*. Family: *Lauraceae*.

Chemical composition: Cinnamaldehyde, Cinnamic acid, Eugenol.

In cinnamomum zeylanicum the most important constituents are cinnamaldehyde and eugenol. These extracts act as analgesic and anti-inflammatory. (Ganapaty et al. anti-inflammatory and analgesic activity of cinnamomum zeylanicum leaf oil. 2005 (42)824).

Cinnamon zeylanicum is also used in dysmenorrhea. (Molouk Jaafarpour et al. J Clin Diagn Res. 2015 Apr; 9 (4): QC04 – QC070).

### **Tejpatta**

Latin name: *Cinnamomum tamala*. Family: *Lauraceae*.

Chemical composition: *Tetrahydroxyflavone, Pentahydroxyflavone, Nonglycosidic compound, Kaempferol*.

*Cinnamomum Tamala* leaves extract is tetrahydroxyflavone, pentahydroxyflavone, non-glycosidic compounds. The anti-inflammatory effect of cinnamomum Tamala leaves is observed due to the presence of flavonoids. Free radicals involved in the process of lipid peroxidation are considered to play a cardinal role in numerous pathologies such as cancer, inflammation, cardiovascular diseases. Inhibition of free radicals suggests the utility of cinnamomum tamala in anti-inflammatory activity. (Manoj Nilkant Gambhire et al./Journal of Pharmacy research 2009,2(9)1521).

### **Dhanyak**

**Latin name:** *Coriandrum sativum* Family: *Umbelliferae*

**Chemical composition:** Coriandrol, Linalool.

Linalool and linalyl acetate are the main components of coriander essential oil known to possess several biological activities e.g. anti-oxidant, anti-microbial, hypoglycemic, hypolipidemic, anxiolytic, analgesic and anti-inflammatory effects. (Laribi et al. 2015; Sahib et al. 2013).

### **Jirna gud (Purana Gud)**

**Ayurvedic properties**<sup>[19]</sup>

**Rasa:** Madhur. **Vipak:** Madhur. **Virya:** Sheeta.



**Doshaghanta:** Tridoshashamak.

**Svadutara:** More sweeter than fresh.

**Laghu:** Easily digest.

**Agnideepan:** Increase digestion.

**Vinmutraamasyashodhan:** Cleanses urinary and stomach part.

**Ruchya:** Increase taste.

**Tridoshghan:** Balance all three *Dosha*.

**Shramhara:** Relives tiredness.

**Panduhara:** Beneficial in anemia.

**Pathya:** Useful for body.

### Phytochemical action

Jaggery is quite rich in its content of folate and iron therefore it helps in prevention of anemia. Jaggery is act as antioxidant like selenium and zinc are help in preventing free radical damage. These minerals also help in boosting the body resistance to different infections.

### Samprapti bhang

**Makkal hara yoga** contains *Trikatu (Pippali, Maricha, Shunthi), Trijata (Twak, Tejpatta, Ela) Dhanyak and Jirna gud*. All the *Makkalhara dravya* act as *Vatanuloman*. *Trikatu* act as a *Shoolprashman* (analgesic) so if there is a *Pratiloma gaman* (opposite) of *Vata* in puerperium period lady complains of pain and as *Trikatu* act as analgesic so it helpful to subside the pain in sutika. Due to vitiated *Vata* or *Dhatu*s are in lethargic stage there is *Agnimandha* in *Sutika* all the *Makkalhara dravya* has contain a properties of *Deepan* and *Pachan* so it helps to improve the digestive strength of *Sutika*. *Pippali* and *Twak* act as *Garbhasyasankhochak* so helps in involution of uterus.

### DISCUSSION

Considering deepan pachan and shodhan property of *Pippali, Maricha, Shunthi*. It helpful in *Aamhara* and *Vata nuloman* and expulsion of *Dushita Shonita* from the uterus. *Pippali* and *Twak* also act as *Garbhashya –Sankochak* so helpful in involution of uterus. *Artavjanana* and *Vata nuloman* property of *Maricha* helpful in *Anuloman Gati* of vitiated *Vata* as a result *Dushit Shonita* is expel out from uterus and helps to overcome the abdominal pain. *Raktashodhak* and *Aujovardhak* property of *Twak* helpful in rejunvate the *Shithila Dhatu* of



*Sutika*. *Tridoshashamak* property of *Ela* and *Dhanyak* and *Rasayan*, *Vata Nasak*, *Pathyakar* property of *Jirna* (*Purana Gud*) also helps to overcome after pain.

## CONCLUSION

*Makkalhara Yoga* is easy to administer all the ingredients present in this are easily available. *Makkalhara yoga* contents has enough power to act as analgesic antiinflammatory, carminative, *Garbhasyasankhochak* to subsides the symptoms of *Sutika Makkala* or subinvolution of uterus. Therefore, it is mention here that this *Yoga* should be considered for *Makkalshool* present in *Sutika*.

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