

Ayurveda

KEYWORDS: Garbhini

Kamala, Darvyadi Leha, Intrahepatic Cholestasis of Pregnancy.

A CLINICAL STUDY TO EVALUATE THE EFFICACY OF DARVYADI LEHA IN GARBHINI KAMALA W.S.R. TO INTRAHEPATIC CHOLESTASIS IN PREGNANCY- A CASE STUDY



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Abstract

Background: Vedic literature is the origin of ancient medical science. Brihatrayee are the three main Samhitas which explain the basic fundamentals of Ayurveda. In our classical texts women have been mentioned as Janani. Acharya Charaka and Acharya Sushruta have mentioned Kamala as advanced stage of Panduroga as well as further complication of the said disease respectively. Acharya Vagbhata also mentioned Kamala as an independent disease. Not the mention of Garbhini Kamala as an independent disease in the Samhitas can be found, but the treatment of said entity has been quoted in Kashyapa Samhita. The similarities in the manifesting clinical features on the basis of which Garbhini Kamala can be closely correlated to Intrahepatic cholestasis of Pregnancy. Aim & Objective: The present study is an effort to understand the disease according to Ayurvedic principles & to evaluate the role of safer and cost effective Ayurvedic management modalities in Garbhini Kamala. **Materials & Methods:** A pregnant female patient aged 25 years, Primigravida with POG of 28weeks 3 days with complaints of vomiting, loss of appetite, general debility visited the OPD of PTSR of RGGPGA college, Paprola. Her lab investigations were advised to be done and were suggestive of Garbhini Kamala. Darvyadi Leha was administered for 30 days to the pregnant woman followed by 10 days of drug free period. **Results:** Patient responded to the drug quite well as symptoms as well as lab investigations were found to be improved and no side-effects were recorded. **Conclusion:** Hence it has been concluded that Darvyadi Leha can be practiced as a line of treatment for Garbhini Kamala which definitely needs further research in large sample to establish.

INTRODUCTION

Acharya Charaka has explained the woman is the origin of progeny.^[1]

-----;दधत्यानां मूलं नार्याः परं नृणाम् ।

God has given this precious gift to the woman and one of the noblest and devout of all the human powers that is the work of reproduction. In the heart of every woman deep down motherhood is one of the most cherished desire. Child bearing and delivery are also such physiological entities which are always ready to convert into pathological entities, if uncared. So, here "Prakriti Sthapanam" is essential to prevent the pathology. *Garbhini Kamala* as an independent entity has not been mentioned in Ayurvedic classics. *Kashyapa Samhita Khill Sthana* and *Kashyapa Samhita Chikitsa Sthana* are the Ayurvedic texts where the mention of *Garbhini Kamala* treatment has been quoted. *Garbhini Kamala* is closely related to Intrahepatic Cholestasis in Pregnancy in terms of similarities in manifesting sites.

Samprapti^[2]

यथा दुरतेन दोशेण यथा चानुविसर्पिता ।
निवृत्तिरामयस्सौ संग्राप्तिजातिरगतिः ॥

Samprapti Ghataka of Bahupitta Kamala^[3] are as follows:

- Dosha** - Pachaka Pitta, Ranjaka Pitta
- Dushya** - Rasa, Rakta, Mamsa
- Udbhavasthana** - Koshtha (Yakrut, Pleeha)
- Vyaktasthana** - Netra, Twaka, Nakha,
- Aanana, Mala, Mutra dushti**
- Adhishthana** - Yakrita
- Sancharasthana** - Rasa, Rakta
- Strotasadushti** - Rasavaha, Raktavaha, Annavaha
- Agni** - J a t h a r a g n i ,
- Rasadhatwagni/Raktadhatwagni**
- Sadhya Asadhyatwa** - Kashtasadhya
- Strotodushti Laxana** - A t i p r a v r u t t i ,
- Vimargamana**
- Marga** - Bahya and Aabhyantra

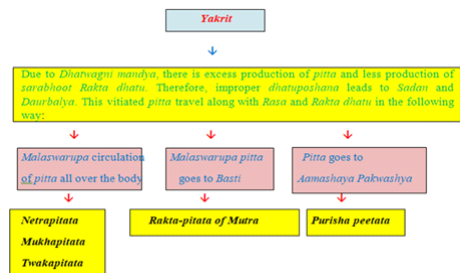


Fig no.1: Showing vitiation of Dosha and Dushya in Bahupitta Kamala

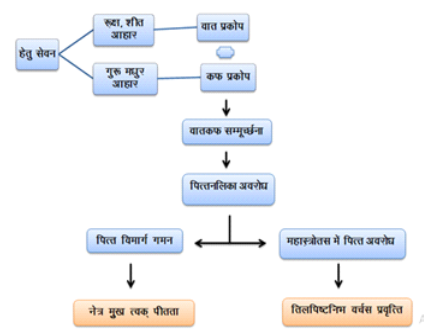


Fig.no.2: Way of Vitiated Pittadosha in Rudhaphatha Kamala

Pregnancy is a cholestatic condition. The stasis of bile in canaliculi with rise in canaliculi with rise in conjugated bilirubin is probably due to excess circulating estrogen.[4] The incidence of IHCP varies from 0.02-2.4% of pregnancies about 70% of them present in last

trimester and is associated with high maternal and perinatal morbidity and mortality rates.^[5]

Table no. 1: Showing Liver Function Tests in Pregnancy^[6,7]

LFT	Non Pregnant	1 st Trimester	2 nd Trimester	3 rd Trimester
Bilirubin (micromole/L)	0-17	4-16	3-13	3-14
AST (IU/L)	7-40	10-28	11-29	11-30
ALT (IU/L)	0-40	6-32	6-32	6-32
GGT (IU/L)	7-41	5-37	4-43	3-41
ALP (IU/L)	20-125	6-375	Increases progressively to Term	
Albumin (g/L)	35-55	Falls by 10g/L	Increases progressively to Term	
Globulin (g/L)	30-50	Increases progressively to Term		
Fibrinogen (g/L)	2-4	Increases progressively to Term		

Intrahepatic cholestasis of pregnancy^[8]:

- In most of the cases, it is seen in the second half of pregnancy.
- Important histological finding – Intrahepatic cholestasis with centrilobular bile staining without inflammatory cells or proliferation of mesenchymal cells.
- This is because of high estrogen levels in susceptible women.
- Incomplete clearing of bile acids in the liver which accumulate in plasma.

Case Study

Atura Vivarna, Vedna Vishesh (Chief Complaints, H/O Present Illness)
 A pregnant female patient aged 25 years, Primigravida with POG of 28 weeks 3 days presented with the complaints of nocturnal itching mainly on feet, hands and abdomen initially then later on developed generalized itching, vomiting, loss of appetite, general debility visited the OPD of PTSR of RGGPGA college, Paprola. On examination mild pallor was present, icterus was also present on bulbar conjunctiva. On her visit to PTSR OPD, same day her lab investigations were advised to be done and reports of liver function tests were suggestive of Garbhini Kamala. Rest routine examinations were within normal limit. On further enquiry, she told that she was having 2-3 episodes of vomiting on and off since 4-5 days and vomitus mainly contained food particles and watery content. She didn't feel like eating. She also complained of nocturnal pruritis on palms of hands, soles of feet and abdomen initially, later on developed generalized itching.

Poorva Vyadhi Vrittanta (H/O Past Illness)

There was no history of hypertension, DM-II, thyroid disorders, tuberculosis, surgical intervention, Blood Transfusion and any other systemic illness. Past menstrual history revealed normal cycles. On general examination, no systemic disease was detected. . Prakruti assessment revealed she was having Pitta-Kapha prakruti.

Rajo Vrittanta (Past Menstrual History)

Menarche – At the age of 13 years

Menstrual history revealed normal cycles having duration of 3-4 days and interval of 30-32 days without any associated pain, smell and clots during menstrual period.

LMP was found to be on 24-01-2021

Kula Vrittanta (Family History)

No family history of DM, HTN, TB and thyroid dysfunction. No history of exposure to radiation, any toxin or chemical agent.

Atura Pariksha (Examination Of Patient)

Table 2: DASHVIDHA PARIKSHA

PARAMETER	RESULTS
Prakruti	Pitta-Kaphaj

Vikriti	Rasavaha, Raktavaha, Annavaha
Sara	Raktasara
Samhanan	Madhyam
Praman	Madhyam
Satmya	Mishrit
Satva	Madhyam
Ahar Shakti	Avara
Vyayam Shakti	Avara
Vaya	Yuvavatha

INVESTIGATIONS OF PATIENT

Table 3: Investigations carried out Before Treatment

PARAMETER	RESULTS
Blood group & Rh factor	B positive
Hb	8.7 g/dl
UPT	Positive
RBS	98 mg/dl
TSB	1.2mg/dl
DSB	0.6mg/dl
SGOT	19 IU/L
SGPT	41IU/L
B. Urea	15 mg/dl
S. Creatinine	0.8mg/dl
S. Uric acid	4.2mg/dl
BT	1min50sec
TSH	1.58ulu/ml
HIV	Negative
HBsAg	NR
VDRL	NR

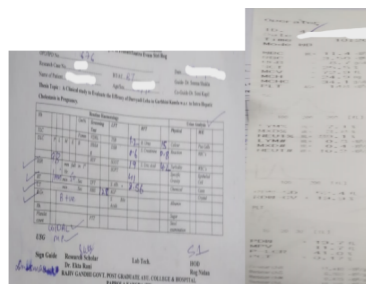


Fig. No.3 : Showing Lab Investigations Before Treatment

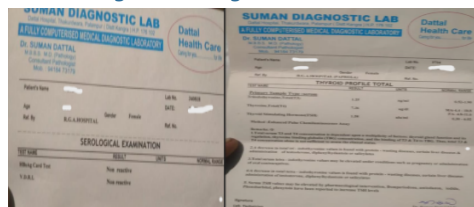


Fig. No.4: Showing Thyroid Function Test and Viral Markers

Table 4: Antenatal Examination

Linea Nigra, Striae Gravidarum	Present
P/A	FH ~ 28-29 weeks FPP- Cephalic FHS- 148 bpm, Regular Uterus- Relaxed
USG	Single Live Intrauterine Pregnancy done at 18 weeks 5 days.

Treatment Planned

As patient was 28 weeks 3 days pregnant, treatment advised for regular ANC was:

Tab Dhatri Lauha 250 mg 1BD

Tab Muktaashukti 250 mg 1BD
Shatavari Ghrita 2tsf with Milk BD

Along with above mentioned treatment protocol, as patient presented with the complaint of Garbhini Kamala, Darvyadi Leha was administered in the dose of 10gm BD for 30 days followed by 10 days of drug free period.

RESULT

After completion of treatment plan, patient got relief in the symptoms along with significant improvement in lab investigations without any side effects of administered treatment protocol.

Table 5: Investigations carried out After Treatment

Hb	10.2 g/dl
RBS	101 mg/dl
TSB	0.3mg/dl
DSB	0.2mg/dl
SGOT	21 IU/L
SGPT	15IU/L



Fig. No.6 : Showing After Treatment Lab Investigation Reports of Patient

DISCUSSION AND CONCLUSION

The probable mode of action of the constituent drugs on *Samprapti Ghataka* can be understood as described below:

Darvyadi leha has 11 components out of which 4 drugs possess *katu rasa*, 2 drugs have *Pancharasa*, 1 drug possesses *tikta* and *kshaya rasa*, 1 drug possesses *tikta* and *madhura rasa*, 1 drug possesses *Madhura* and *Kshaya Rasa* and 1 drug possesses *Madhura Rasa* collectively work on the *samprapti vighatana* of *Garbhini Kamala*.

Out of 11 contents of *Darvyadi Leha*, 9 contents have *Laghu Guna*. *Laghu guna* is *Lekhaniya*⁹¹ that helps in removing the *Srotorodha*¹⁰¹ and alleviation of aggravated *Kapha Dosh*. 6 contents have *Ruksha Guna*. *Ruksha Guna* has properties opposite to *Pitta Dosh* that would help in *Pittashamaka* and *Kaphashamaka*.¹¹¹ 3 drugs have *Snigdha Guna*. *Snigdha Guna* helps in *Vatashamana*¹²¹ that would prevent the *Vimarga Gamana* of the *Doshas* and lead to *Samprapti Bhang* of the disease. 3 drugs have *Teekshana Guna*. *Teekshana Guna* helps in *Daha*, *Paka Sravana*¹³¹ that helps in *Pitta Sravana*, also helps in *Kaphashamaka*, acts on *Srotorodha* that would result in alleviation of the symptoms of the disease. 2 drugs have *Guru Guna*. *Guru Guna* is *Balya*¹⁴¹ that helps in provide strength to the body and helps in *Vatashamana*.¹⁵¹ 1 content have *Sara Guna*. *Sara Guna* is *Anulomaka*¹⁶¹ that helps in *Anulomana* of aggravated *Doshas* and thus, provide the normal coloration to the urine and stool by restoring the natural pathway of the *Doshas*. 1 drug have *Sheeta Guna*. *Sheeta Guna* helps in *Pittashamana*.¹⁷¹

Mandagni is one of the important causes of *Kamala Roga* and *Darvyadi Leha* contains *Daruharidara* and *Trayushna* which increases *Agni*^{18,191} and play vital in *Samprapti Vighatana* of *Kamala Roga*.

Trikatu having *Deepana- Pachana* properties helpful in *Ama Pachana*. It also has *Yakruttejaka*²⁰¹ property that is helpful in proper physiological functioning of liver.

Lauha Bhasma due to its *Sheeta Veerya*²¹¹ is *Pittashamaka* as helpful in *Bahupitta Kamala*. It is also *Balya*, *Vrishya*, *Tridosahara* and

Rasayana.²²¹ Moreover, *Bhasmas* due to their *Sukshma Guna* increase the absorption and bio availability of the drug.

Lauha Bhasma is the source of iron in *Darvyadi Leha* and helps in increasing Hb in RBC.²³¹ *Triphala* helps in blood purification as it has antioxidant properties which helps in scavenging free radicals which also decreases oxidative stress^{24,251} also has hepatoprotective properties²⁶¹ hence normalizes the bile levels which is related haemoglobin, porphyrin metabolism.

Probable mode of action of *Darvyadi Leha* showing *Samprapti Vighatana* of the disease in Fig. no.7.

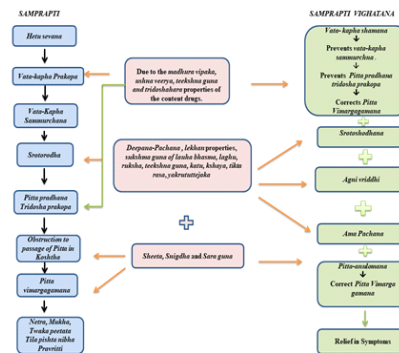


Fig No. 7: Showing *Samprapti Vighatana* of the disease.

Conclusion

The following conclusion can be drawn after scrutinizing the study regarding *Garbhini Kamala*.

- *Garbhini kamala* has close resemblance with *Intrahepatic cholestasis* in *Pregnancy* in terms of similarities in manifesting sites.
- *Pregnancy* is a cholestatic condition. The stasis of bile in canaliculi with rise in canaliculi with rise in conjugated bilirubin is probably due to excess circulating estrogen.
- The main principles of management of *Garbhini kamala* is *Pitta Pradhana Tridosha Shamana*, *Vatanulomana*, *Srotoshodhana*, *Amapachana*, *Agnideepana*.

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