

CLINICAL EFFICACY OF SUBIDHABALA KHAND IN GARBHINI CHARDI (EMESIS GRAVIDARUM)*¹Mansa Devi and ²Asokan Vasudevan*¹P.G. Scholar and ²MS, Ph.D GAU

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Article Received on 21/05/2019

Article Revised on 11/06/2019

Article Accepted on 01/07/2019

ABSTRACT

Introduction: Vomiting in pregnancy is the first and foremost symptom of pregnancy. Emesis Gravidarum is a worldwide common obstetrical problem seen in the first trimester of pregnancy in about 50-60% of pregnant women. Ayurvedic classics have mentioned Garbhini Chardi as one among the Vyakta Garbha Lakshanas, which can be correlated with Emesis Gravidarum. The present study drug Subidhabala khand is used for the management of Garbhini chardi. **Methodology:** This single arm clinical trial study was conducted among 30 pregnant women pre and post test design at PIA, PU, Vadodara. The drugs of Subidhabala khand were collected in the form of raw material and the Subidhabala khand (granules) was prepared at GMP certified pharmacy of PIA, Vadodara. Drug Standardization and authentication was done before the clinical trial. These patients were selected based on the criteria of inclusion, exclusion and assessment were done as per the standard parameters. 30 patients were given Subidhabala khanda orally in a dose of 6 gm twice a day before food with Ksheera as Anupana. The response to the treatment was recorded and therapeutic effects were evaluated by symptomatic relief and based on assessment criteria. **Aim:** To evaluate the therapeutic efficacy of Subidhabala khand in Garbhini Chardi. **Objective:** To observe the add on benefits of Subidhabala Khand in relieving the symptomatology of Garbhini Chardi and its effect on fetal and maternal well being. **Result:** In the present study, Subidhabala khanda was having good effect in reducing Chardi vegas-44.56%, Hrullas-37.37%, Aruchi-36.07%, Quantity of Vomitus-47.72% and in Content of vomitus-47.72% relief was found and adverse effects were observed during the study period. **Conclusion:** Total thirty two patients were enrolled in study. Two patients dropped out of the study, but all remaining thirty patients experienced improvement at the end of treatment. In the study significant improvement ($P < 0.005$) was observed in symptomatology.

KEYWORDS: Emesis gravidarum, Garbhini Chardi, Subidhabala khand.**INTRODUCTION**

Achievement of motherhood is the cherished desire of every woman. Garbhini Chardi (Vomiting in pregnancy) is a common symptom in obstetrics practice. Slight vomiting is so common in early pregnancy which is considered as a symptom of pregnancy.^[1] When the pregnant women suffer from any disorders due to fetus the disorders are known as Garbhopadrava.^[2] Acharya Harita has described eight Garbhopadravas as follows. Shosha, Hrullasa, Chardi, Shopha, Jwara, Aruchi, Atisara and Vivarnatva.^[3] All the classics have mentioned excessive salivation, nausea, vomiting as symptoms of normal pregnancy. In the description of Chardi, Sushruta and Bhavaprakasha has enlisted pregnancy among causative factor of fifth type of Chardi i.e Agantuja Chardi.^[4] Acharya Charaka and Vagbhata has included Garbhini Chardi under Dwishtarthaja Chardi.^[5] Acharya Vagbhata and Bhavaprakasha has enumerated Dauhrida in

etiology. Dalhana Acharya has also explained non fulfillment of Dauhrida causes vomiting.^[6] Emotional factors undoubtedly contribute to the severity of nausea and vomiting. If this condition is not treated well early or in time emaciated women may suffer from hyperemesis gravidarum. Proper consumption of folic acid, vitamins is very essential but due to intense disaster mother cannot take sufficient quantity of nutrients and it may provoke some development anomalies in the fetus.^[7] Garbhini Avastha is termed as delicate state. Shamana chikitsa is suggested instead of Shodhana chikitsa. There is a need for an alternative, rational, safe and patent remedy. While explaining regarding Chikitsa in Garbhini; Acharya's have mentioned that she should be given things which are easily palatable, Hrudya and which are liked by her.^[8] Khanda (Granules preparation) is one among them because of sweetening agents present in this and is liked by Garbhini. As Laja and Sarkara are rich

source of carbohydrate, acceptance of Khanda preparation is gaining rapid importance because it is easily administered and palatable and rich in taste. It is also having Hrudyā, Rochana, Depaneeya, Grahi and *Kaphavata* shamaka properties.

AIM: To evaluate the therapeutic efficacy of Subidhabala Khand in Garbhini Chhardi.

OBJECTIVE: To observe the add on benefits of Subidhabala Khand in relieving the symptomatology of

Garbhini Chardi and its effect on fetal and maternal well being.

MATERIALS AND METHODS

SELECTION OF DRUG

Patients will be treated in single group with *Subidhabala khand* 6 gms twice a day with anupana of cow milk before food for 30 days. Assessment was made on change in clinical features before and after treatment. Standardization and authentication of drug will be done.

Table No. 1: Ingredients of Subidhabala Khand.^[9]

S no.	Drugs name	Botanical name	Part used	Quantity
1	Bilwa	<i>Aegle marmelos</i>	Unripe fruit rind	1 Part
2	Dhanyak	<i>Coriandrum sativum</i>	Seeds	1Part
3	Bala	<i>Sida cordifolia</i>	Root	1Part
4	Shunti	<i>Zingiber officinale</i>	Rhizome	1Part
5	Laja	<i>Oryza sativa</i>	Parched rice	1Part
6	Mudga	<i>Phaseolus aureus</i>	Seeds	1Part
7	Sarkara (Ikshu)	<i>Saccharum officinarum</i>	Sugar	9 Part

STUDY DESIGN

A single group clinical study with pre test and post test design was conducted on 30 pregnant women. These patients were selected based on the criteria of inclusion and assessments were done as per the standard parameters.

CRITERIA FOR SELECTION OF PATIENTS

In Inclusion criteria

1. Pregnant women either primi or multi gravid between the age group of 20-35 years.
2. Primi women diagnosed as *Garbhini Chardi* (Emesis gravidarum) in first-trimester of pregnancy.

Exclusion criteria

1. Pregnant women with *Garbhini Chardi* in second and third trimester.
2. Women with hyper emesis gravidarum, twin pregnancy and vesicular mole. Vomiting caused due to other systemic disorders like peptic ulcer, appendicitis etc.

Diagnostic criteria

Pregnant women in first trimester (First 12 weeks) with-
Chardi (Vomiting)
Hrullasa (Nausea)
Aruchi (Anorexia)

Informed Consent

The purpose of the study, nature of the study drugs, the treatment to be done and the potential risks and benefits were explained to the patients in detail in nontechnical terms and trilingual and informed written consent was obtained the common unit of the trial.

LABORATORY INVESTIGATION

Haematological

Complete Blood Count

RBS

HBsAg, HIV, VDRL

Urine-Routine

USG - to rule out ectopic pregnancy and multiple pregnancies or other cause-before treatment

PATHYA

Sevana of *yava*, *shali shastika*, *dadima*, *badara*, *draksha* and *manoanukula satmya ahara*.

All *manoanukula karya* like praying, meditation, *yoga*, walking, listening to good music *anukoola rasa gandha sevana*.

APATHYA

Sevana of *bimbi phala*, *maricha*, *indrayava* and *prakriti virudha dravyas*.

Excessive liquid and *Dushita jala sevana*

Shodhana chikitsa, *chinta*, *bhaya* and *shoka*.

Excessive *Vyayama*, exertion, riding vehicles and lifting heavy weights.

CRITERIA OF ANALYSING RESULTS

The result was assessed on the basis of improvement in following *Lakshanas* like- *Chardi vegas*, content and quantity of vomitus, *hrullas*, *aruchi* and dehydration.

To assess the effects of drug, a special scoring method was adopted as follows:

Table No. 2: Scoring pattern for assessment.

Criteria	Observation	Finding	Grading
Frequency No. of <i>vegas</i> (vomiting)	No <i>vegas</i>	Normal	(0)
	1 to 2 <i>vegas</i> in a day	Mild	(1)
	3 to 4 <i>vegas</i> in a day	Moderate	(2)
	More than 4 <i>vegas</i> in a day	Severe	(3)
Quantity of Vomitus	Nil	Normal	(0)
	<50 ml	Mild	(1)
	50-100 ml	Moderate	(2)
	>100 ml	Severe	(3)
Content of Vomitus	Nil	Normal	(0)
	Watery	Mild	(1)
	Bile	Moderate	(2)
	Food	Severe	(3)
Hrullasa (nausea)	No Hrullasa (Nausea)	Normal	(0)
	On and Off Nausea but able to eat food.	Mild	(1)
	Can take food sometimes	Moderate	(2)
	Nausea on any oral Diet	Severe	(3)
Aruchi (anorexia)	No Aruchi (Anorexia)	Normal	(0)
	Can take food forcefully but improper amount	Mild	(1)
	Can take food forcefully but small amount	Moderate	(2)
	Can't take food at all	Severe	(3)
Dehydration General appearance	Well, alert	Normal or Mild	(0)
	Restless, irritable	Moderate	(1)
	Lethargic or unconscious	Severe	(2)
Eyes	Normal	Normal or Mild	(0)
	Sunken	Moderate	(1)
	Very sunken	Severe	(2)
Thirst	Drinks normally, not thirsty	Normal or Mild	(0)
	Thirsty, drinks eagerly	Moderate	(1)
	Drinks poorly or not able to drink	Severe	(2)
Skin turger	Goes back quickly	Normal or Mild	(0)
	Goes back slowly	Moderate	(1)
	Goes back very slowly	Severe	(2)

Since no patient had signs of dehydration, so assessment was not done related to this parameter.

OBSERVATIONS AND RESULT

In the present study among 30 patients selected for the study 60.0% of patients were in the age group between 26 to 30 years, 90% of patients were hindus community and 70% patients were House wives and 60% were belongs to Lower middle class. The maximum incidence of 46.7% were 8 weeks of amenorrhoea, 36.7% were 6 weeks of amenorrhoea, 6.7% were 5 weeks of amenorrhoea and 3.3% of patients were of 9 weeks, 10 weeks, 11 weeks of amenorrhoea respectively. The incidences of 16.7% were history of maternal Emesis/Hyper emesis gravidarum and 30% were history of previous pregnancy Emesis/Hyperemesis, Primi gravida (60%) and Multi parous (40%). Symptoms of Alasya (63.3%), Agnimandya (60%), Shirasoola (40%), Tandra (70%) were found before treatment. Before treatment the maximum patients of 70% had vomiting for 3-4 times, 26.7% of patients had 1-2 times and in 3.3% patients vomiting was for more than 4 times. After the treatment 23.3% patients had normal vomiting, 70% of patients had vomiting 1-2 times and in 6.7% patients vomiting

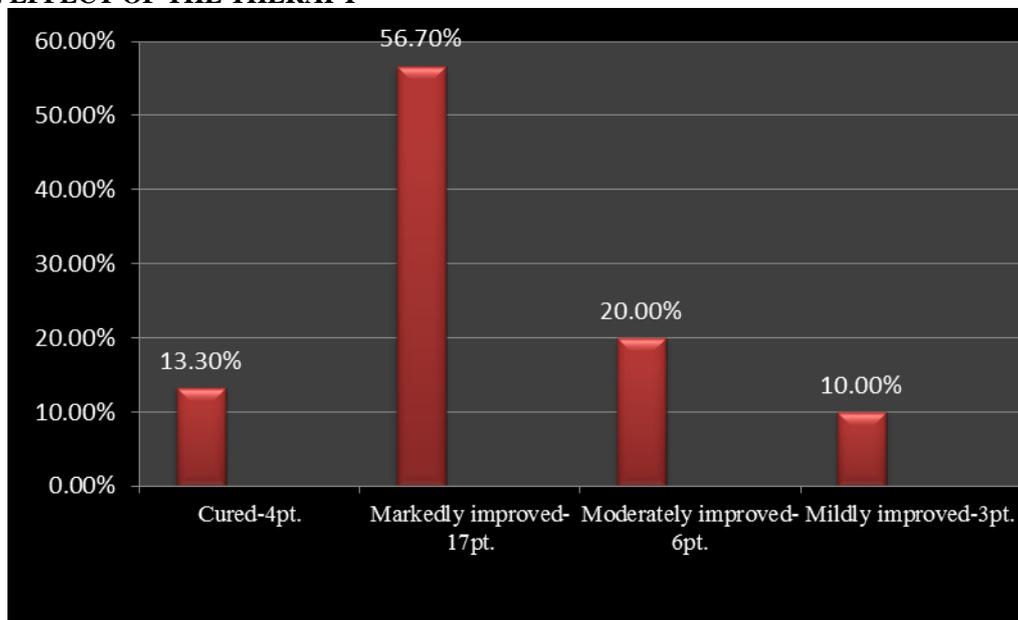
was for 3-4 times /day. Before the treatment the maximum patients of 66.7% had quantity of vomitus < 50ml, 30% of patients had 50-100 ml and in 3.3% patients vomitus is absent. After the treatment in maximum 90% patients quantity of vomitus were normal and only 10% patients had quantity of vomitus <50 ml. Before the treatment the maximum patients of 60% had watery vomitus, 20% of patients had food containing vomitus, 13.3% of patients had vomitus with bile mixed and in 6.7% patients vomitus content is absent. After the treatment the maximum patients of 93.3% had normal vomitus and only 2% patients had watery vomitus. Before the treatment the maximum patients of 76.7% had mild Aruchi and in 23.3% patients Aruchi was normal. After the treatment maximum patients of 90% had normal Aruchi and only 10% patients had mild Aruchi.

RESULTS

Following results were obtained from 30 patients. The results will be discussed by looking at the condition of the subjects before and after the treatment in 30 patients, thus the effect of the treatment is statistically assessed.

Symptoms	Mean BT	Mean AT	(d)	% of dif.	SD	SE	T value	P value	Remarks
No.of chardi vegas	1.93	1.07	0.86	44.56	0.531	0.097	8.601	<0.005	S
Quantity of vomitus	1.97	1.03	0.94	47.72	0.305	0.056	1.795	<0.005	S
Content of vomitus	1.92	1.08	0.84	43.75	0.988	0.180	9.426	<0.005	S
Hrullas	1.82	1.18	0.64	37.37	0.450	0.082	3.247	<0.005	S
Aruchi	1.83	1.17	0.66	36.066	0.305	0.056	1.795	<0.005	S

OVERALL EFFECT OF THE THERAPY



Graph no.1 Overall effect of the therapy.

On the basis of previous fixed assessment criteria, the total effect of therapy had been evaluated. The total effect of therapy, 4 patients (13.30%) was cured, 17 patients (56.70%) markedly improved, 6 patients (20%) were moderately improved and 3 patients (10%) got mildly improvement.

In this study 3 patients did not get effective results. This may be due to not following the daily dietary habit and physical activities which were advised to them. The patient had visited for treatment during the early period of gestation when the level of hormone hCG and others are in the increasing phase and hence may have lead to less efficacy of the drug.

DISCUSSION

Garbhini Chardi is described as one of the *Vyakta Garbha Lakshana*. *Chardi* and *Hrullasa* are described in that and also described in *Garbhini Updrava*. *Garbhini Lakshana* i.e. *Chardi*, *Angamarda*, *Daurbalya* etc. found due to impaired functions of *Agni* and *Vayu*. According to Acharya Madhavakara *Garbhini Chardi* occurs due to *garbhutpeedana janya vata* vitiation. Due to vitiation of *vatakapha dosha*, *agnimandya* occur which in turn causes *chardi*, *aruchi*, *hridyavyatha* and *adhamana*. According to modern science, the pregnancy hormone progesterone relaxes intestinal muscles and esophageal sphincter and causes alterations in the gastrointestinal motility so these symptoms such as heartburn, nausea,

vomiting and constipation occur. Severe nausea and vomiting can result in weight loss and dehydration. Hormone Progesterone also depresses the CNS, can cause tiredness, body ache and recurrent abdominal pain can be seen in nausea and vomiting of pregnancy and may also cause by gastrointestinal dysmotility and decreased nutrition.

Rasa of *Garbhini* is used for three functions one of *garbha poshana*, second for *stanya* formation and third one for her own *poshana*. Due to vitiation of *dasha* the small proportion of *rasa* is not sufficient to fulfill all the nutritional requirement of *Garbhini*, it leads to *rasa*, *rakta kshaya* and causes *daurbalya*, *alasya*, *angamarda*, *tandra*, *bhrama* and *shirashoola*.

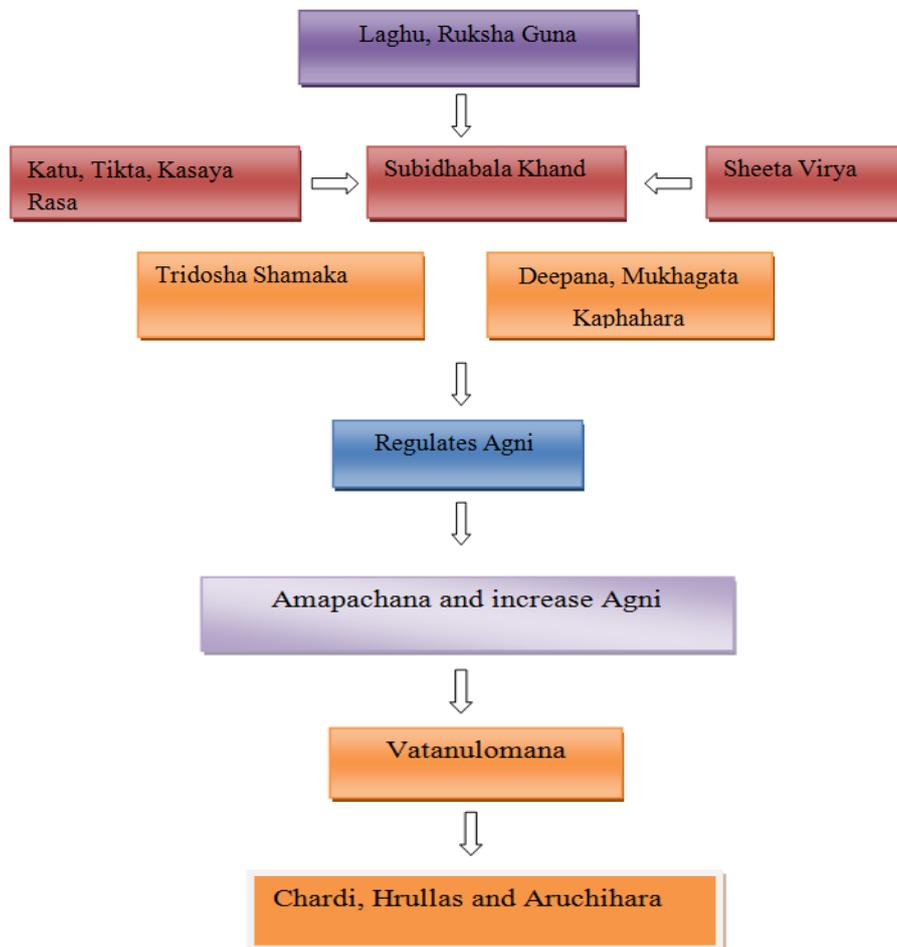
Bilwa, *sunti* and *sharkara* in the trial drug causes *vata shamana* and *sunti* by the action of *vatanulomana* leads to downward movement of gastric content thereby decreasing the quantity and content of vomitus leading to reduction in *chardi vega*. Thus *Dhanyaka* with its property of *brihmana*, *ruchivardhaka*, *agnideepaka*, *amapachaka* and *dhatu poshaka* it also maintains *vata* in normal proportion there by controlling *Chardi* and nourishing *Garbha*. The drug *Subidhabala khand* is having properties of *hrudya*, *ruchivardhaka*, *madhura rasayukta* and liked by *garbhini* so it decreased the complaints of nausea It also has the property of

amapachaka, *agni deepaka* and *vatanulomaka* property, so it was very effective in cures the *aruchi*.

The other associated complaints like-*Alasya*, *daurbalya*, *agnimandya* etc. were also relieved by the action of drug *Subidhabala khand*. *Alasya* is decreased due to *indriyapasadaka* property. *Aruchi*, *agnimandya* and *annadwesa* relieved by the action of *deepana*, *vatakaphahara*, *mukhavishodhaka* property and

mukhagata kaphahara property. *Aruchi* and *agnimandya* are not a symptom directly related to *vata* only but *kapha dusti* is also associated with this. It may not be relieved with the help of only *vata* pacifying measures. *Deepana* drugs and *vatakaphahara* property may also be needed for these types of symptoms and they can definitely play a very significant adjuvant role in this regimen. *Shirasoola* relieved due to decrease in vomiting and *soolaprashamana* property of drug.

PROBABLE MODE OF ACTION OF SUBIDHABALA KHAND



Flow chart of probable Mode of action of Subidhabala Khand.

CONCLUSION

The principle line of treatment in *Garbhini* with *priya vachana*, *ahara* and *vihara* along with *Shamana chikitsa*. Among all the *Shad rasas* *katu* and *tikta* *rasa dravyas* have better action in controlling *Chardi*. *Garbhini chardi* mentioned as *vyakta garbha lakshanana* can be correlated to emesis gravidarum and that mentioned as *Upadrava* can be correlated to complications of hyperemesis. *Subidhabala Khand* which is palatable, nutritious and having good nutritive value which was effective in reducing *Chardi Vega*, *Hrullasa*, *Anannabhilasha*, *Agnimandya*, *Aruchi*, *Tandra* and *Shirasoola*. In *Garbhini Chardi* along with medication, dietary modification, bed rest, *pranayama* and assurance help in controlling it.

ACKNOWLEDGEMENT

The Authors thank Dr. Hemant D. Toshikhane, Dean, Faculty of Ayurved, Parul university, for providing the facilities for the research work. The authors also like to thank HOD and all the teaching faculties of Department of Prasuti Tantra and Stri Roga for their guidance and continuous support and teaching pharmacy of Department of Rasa Shastra and Bhaishajya Kalpana, Parul Institute of Ayurved, Parul University, Vadodara, Gujarat who helped in preparation of *Subidhabala Khand* for the study.

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