A CLINICAL STUDY ON THE EFFICACY OF BILWA MAJJA CHURNA WITH LAAJAMBU IN THE MANAGEMENT OF GARBHINI CHARDI.
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ABSTRACT
Garbhini chardi (vomiting in pregnancy) is a common symptom in obstetric practice 50- 80% of all pregnant women suffers from vomiting in pregnancy most probably in first trimester. In this era where life style and status of woman has changed woman shares equal responsibilities like males in almost all fields. They have to act both in house as well as at working place. In this condition vomiting in pregnancy interferes with woman’s normal day to day life.
If not treated well early or in time, It also affects the quality of life of pregnant woman and pregnancy out comes. In unresponsive cases needs hospitalization and even termination of pregnancy.
Ayurvedic classics have described many formulations for management of Garbhini Chardi.
Key words: Garbhini chardi (vomiting in pregnancy)

INTRODUCTION
Garbhini Chardi (Vomiting in pregnancy) is a common symptom in Obstetric Pregnancy. The patient complains of Nausea and occasional sickness on raising in morning. Slight vomiting is so common in early pregnancy which is considered as a symptom of pregnancy. In early months of pregnancy altered physiology initiates vomiting. It may however occur at other times of the day. It is mostly in 1st trimester than 2nd & 3rd trimester.
When the pregnant women suffers from any disorders due to fetus, the disorders are known as
Garbhopadrava. The fetus is the basic cause of most of the Grabhopadravas, that afflict the pregnant women. Acharya Harita has described 8 Grabhopadravas as follows: Shosha, Hrullasa, Chardi, Shopha, Jwara, Aruchi, Atisara, Vaivarnatva. All the classic have mentioned excessive saliva 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. Aagantuja chardi. Acharya Charaka & Vaghbata has included Garbhini Chardi under Dwishtartaja chardi. Acharya Vaghbata & Bhavaprakasha has enumerated Dauhadra in etiology. Dalhana has explained non fulfillment of Dauhruda causes vomiting. According to Madhavanidana, one of the cause of Chardi is Apanasatva which means being pregnant. The genesis of pregnancy induced nausea & vomiting is not clear, possibly the hormonal changes are responsible. Chorionic Gonadotropin for instance has been implicated on the basis that its level are rather high at the same time that nausea and vomiting are most common, several studies have put many theories. Emotional factors undoubtedly contribute the severity of nausea & vomiting. If not treated well early or in time emaciated women may suffer from hyper emesis Gravid, vomiting may be so severe that dehydration, electrolyte imbalances, acid base disturbances and starvation become serious problem which is very refractive to treat its effects the hydration status of pregnant women and may interfere I the development of fetus. It may be harmful to the life of mother and fetus for the development of nervous system and other vital structures of fetus 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. The clinical management of disease as per modern drugs advise antiemetic which have notorious adverse effects. Long term use of antiemetic drugs have linked to a number of congenital defects and malformation (Kullender s Kallen B 1976) there may be a weak association between Meclozine and
congenital eye defect (Shapiro 1978). Promethazine may be associated with an increased incidence of congenital dislocation of the hips (Hoff P.S 1980).

Nausea and vomiting in pregnancy can be extremely debilitating for the patient. If inadequately managed, can cause significant morbidities including malnutrition, Electrolyte imbalance, Thrombosi, Wernicke’s encephalopathy, depressive illness, and poor pregnancy outcomes such as prematurity and small for gestation age fetus. Ayurvedic antiemetic preparations are very gentle and potent. They can be used for long term treatment without any harm to the fetus. The treatment of Garbhi Chardi by Bilwa Majja churna with Laajambu is mentioned in Yogaratnakar.

**AIM AND OBJECTIVES:**

To study the efficacy of Bilwa Majja churna with Laajambu in Garbhi Chardi.

**DRUG REVIEW:**

Drugs: Bilwa Majja churna, Laajambu

**MATERIAL AND METHODS**

**SELECTION OF PATIENTS:**

Thirty (30) Patients were selected from Prasuti Tantra & Stree Roga OPD of Sri Siddharoodh Charitable Hospital, Bidar, selected according to inclusion & exclusion criteria, by a Simple randomized method for the study with a single group.

**CRITERIA FOR SELECTION OF PATIENTS:**

**SIMPLE SIZE:**

30 patients were selected according to inclusion criteria.

**SAMPLE PROCEDURE:**

The study is a single blind clinical study in which 30 patients were selected on the basis of simple randomized sampling procedure. 30 patients were given Bilwa Majja churna orally in a dose of 3gm BD before food with with Laajambu as Anupana.

**CRITERIA FOR DIAGNOSIS:**

1. A special clinical Performa/ case sheet was designed to record the findings of the patients i.e for case taking.
2. The condition of all the symptoms were assessed before and after treatment.
3. Routine investigations are done before the treatment to rule out systemic disorders.

**A) INCLUSION CRITERIA :**

1. Irrespective of parity and Age.
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2. Ongoing viable intrauterine pregnancy < 16 wks gestation.
3. Persistent Vomiting • 3 episode / 24 hr not attributable to other causes.
4. H/o hyper emesis gravidarum in previous pregnancy.

B) EXCLUSION CRITERIA
1. Patient with dehydration due to vomiting.
2. Patient with other medical complication associated with pregnancy.
3. Patient with molar pregnancy.
4. Patient with multiple gestations.

STUDY DESIGN/ MANAGEMENT OF PATIENTS:
For the present clinical study, 30 patients will be selected on the basis of
Simple randomized sampling method according to inclusion criteria under a single group.
Medication : bilwa majja
Drug - Bilwa Majja Churna
Dose - 3gm BD, half hour before meal.
Anupana - Laajambu

CRITERIA FOR ASSESSMENT OF RESULTS:
SUBJECTIVE PARAMETER
1. Garbhini
   Bhara (Stabalised, Incresed, Decreased).
2. Other associated symptom (Twak rukshya, Jivha rukshya, Nausea).

OBJECTIVE PARAMETER:
1. Number of Vomiting per day
   The main criteria for assessment of therapeutic trials were based on the symptom of relief. To assess the efficacy of the trial preparation or improvement in clinical signs and symptoms were graded in to 4 grade scale and 2 grade scale on the basis of severity and duration.
   The changes in the gradation of each symptom and sign were studied in the follow up.
   1. Frequency of Vomiting :
      Grades
      No vomiting 0
      Mild (1 – 2 times / day) 1
      Moderate (3-5 times / day) 2
      Severe (> 6 times / day) 3

2. Nausea :
   Grades
   Absent 0
   Present 1

3. Giddiness :
   Grades
   Absent -0
   Present -1

4. General Weakness :
   Grades
   Absent 0
   Present 1

INVESTIGATIONS REQUIRED :
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1. Hb%
2. Blood Grouping and RH typing
3. RBS
4. HIV
5 HbsAg.
6. Urine-R
7. USG

Follow Up:
In this clinical trial, patients were assessed on 1st, 7th, and on 15th day, treatment continued for 3 follow Ups.

CRITERIA FOR UPASHAY:
A. Cured – Patients having overall result Of 67 – 100 %
B. Improved – Patients having overall result Of 34-66%
C. Not cured – Patients having effects Of 0 – 33 %

OBSERVATIONS AND RESULT

The present study was carried out in total 30 patients in a single blind study as prospective study by simple randomized method of selection.

The patients were tested in this clinical study treatment on the vomiting in pregnancy. The data was collected and analyzed on the basis of

* Patients clinical findings
* Statistical analysis of Subjective and Objective Parameter.

Criteria for assessment of statistical significance
1. P > 0.05 is NS (Non Significant)
2. P < 0.05 and > 0.001 is S (Significance)
3. P < 0.001 is HS (Highly significant)

The following observations were made during the course of the present clinical research.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Age Group</th>
<th>Total No. of Pts</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19 – 23</td>
<td>19</td>
<td>63.33</td>
</tr>
<tr>
<td>2</td>
<td>24 – 28</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>29 – 33</td>
<td>2</td>
<td>6.66</td>
</tr>
<tr>
<td>4</td>
<td>above 33</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
In the present study out of 30 patients, 63.33% belong to age group of 19 – 23 years 30% belong to age group of 24 – 28 years and 6.66% belong to age group of 29 – 33 years.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Occupational Status</th>
<th>Total No. of Pts</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>House Wife</td>
<td>17</td>
<td>56.66</td>
</tr>
<tr>
<td>2</td>
<td>Labor worker</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Employed</td>
<td>7</td>
<td>23.33</td>
</tr>
</tbody>
</table>

In the present study, 56.66% patients are Housewives, 20% patients are Labour worker and 23.33% patients are employed.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Educational Status</th>
<th>Total No. of Pts</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Educated</td>
<td>17</td>
<td>6.66</td>
</tr>
<tr>
<td>2</td>
<td>Uneducated</td>
<td>13</td>
<td>43.33</td>
</tr>
</tbody>
</table>
In the present study 56.66% patients are educated and 43.33% patients are uneducated.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Socioeconomic Status</th>
<th>Total No. of Pts</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor</td>
<td>14</td>
<td>46.66</td>
</tr>
<tr>
<td>2</td>
<td>Middle Class</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>Rich Class</td>
<td>4</td>
<td>13.33</td>
</tr>
</tbody>
</table>

Out of 30 patients 46.66% patients belonged to Poor class, 40% patients belonged to Middle class and 13.33% patients belonged to Rich class.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Parity</th>
<th>Total No. of Pts</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primi</td>
<td>17</td>
<td>56.66</td>
</tr>
<tr>
<td>2</td>
<td>Multipara</td>
<td>13</td>
<td>43.33</td>
</tr>
<tr>
<td>3</td>
<td>Grand</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Multipara</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
In the present clinical study of 30 patients 56.66% patient were Primi and 43.33% patients were Multiparous.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Diet</th>
<th>Total No. of Pts.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Veg</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Non Veg</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Mixed</td>
<td>15</td>
<td>50</td>
</tr>
</tbody>
</table>

In the present study, 40% patients are Vegetarian, 10% are non Vegetarian and 50% patients take Mixed diet.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Evidence during prev. pregnancy</th>
<th>Total No. of Pts</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Present</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Absent</td>
<td>4</td>
<td>13.33</td>
</tr>
<tr>
<td>3</td>
<td>Not applicable</td>
<td>17</td>
<td>56.66</td>
</tr>
</tbody>
</table>
In the present clinical study of 30 patients, 17 patients were Primigravida, so incidence is not applicable in 6.66%, 30% patients evidenced vomiting in previous pregnancy and in 13.33% patients had not experienced pregnancy vomiting in previous pregnancy.

**TABLE NO. 8 INCIDENCE ACCORDING TO SYMPTOMATOLOGY.**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>BT Mean±SE</th>
<th>Follow Up</th>
<th>AT Mean±SE</th>
<th>df</th>
<th>T Value</th>
<th>P Value</th>
<th>Effectiveness</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vomiting</td>
<td>2.34±0.14</td>
<td>AT 1 2.20±0.15</td>
<td>1.770</td>
<td>&gt;0.05</td>
<td>4.35</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 2 1.62±0.12</td>
<td>8.15</td>
<td>&lt;0.01</td>
<td>30.43</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 3 1.03±0.130</td>
<td>9.89</td>
<td>&lt;0.01</td>
<td>55.07</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td>1.66±0.05</td>
<td>AT 1 0.93±0.05</td>
<td>1.42</td>
<td>&gt;0.05</td>
<td>6.67</td>
<td>NS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 2 0.63±0.09</td>
<td>4.15</td>
<td>&lt;0.01</td>
<td>36.67</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 3 0.43±0.09</td>
<td>6.13</td>
<td>&lt;0.01</td>
<td>56.67</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giddiness</td>
<td>1.81±0.07</td>
<td>AT 1 0.83±0.07</td>
<td>2.38</td>
<td>&lt;0.05</td>
<td>16.67</td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 2 0.70±0.09</td>
<td>3.49</td>
<td>&lt;0.01</td>
<td>30.00</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 3 0.57±0.09</td>
<td>4.69</td>
<td>&lt;0.01</td>
<td>43.33</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Weakness</td>
<td>1.80±0.09</td>
<td>AT 1 0.82±0.06</td>
<td>2.08</td>
<td>&lt;0.05</td>
<td>13.33</td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 2 0.67±0.09</td>
<td>3.78</td>
<td>&lt;0.01</td>
<td>33.33</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AT 3 0.47±0.09</td>
<td>5.77</td>
<td>&lt;0.01</td>
<td>55.33</td>
<td>HS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **NS:** Non-significant.
- **S:** Significant.
- **HS:** Highly significant.
A CLINICAL STUDY ON THE EFFICACY OF BILWA MAJJA CHURNA WITH LAAJAMBU IN THE MANAGEMENT OF GARBHINI CHARDI.

1. VOMITING
The mean score of the symptom which was 2.30 + 0.14 before treatment reduced to 2.20 + 0.15 after first follow up after second follow up it is reduced to 1.60 + 0.12, after third follow up, the mean score of vomiting was reduced to 1.03 + 0.130. When these values were statistically analyzed, it showed that the drug was high significantly effective with p value <0.01

2. Nausea
The mean score of the symptom which was 1.00 + 0.00 before treatment reduced to 0.93 + 0.05 after first follow up, after second follow up, it is reduced to 0.63 + 0.09, after third follow up, the mean score of vomiting was reduced to 0.43 + 0.09. When these values were statically analyzed, it showed that the drug was significantly effective with p value <0.01.

3. GIDINESS
The mean score of the symptom which was 1.00 + 0.00 before treatment reduced to 0.83+ 0.07 after first follow up. After second follow up, it is reduced to 0.70 + 0.09, and after third follow up, the mean score of vomiting was reduced to 0.57 + 0.09. When these values were statistically analyzed, it showed that the drug was significantly effective with p value <0.01.

4. GENERAL WEAKNESS
The mean score of the symptom which was 1.00 + 0.00 before treatment reduced to 0.87 + 0.06 after first follow up, after second follow up, it is reduced to 0.67 + 0.090, after third follow up the mean score of vomiting was reduced to 0.47 + 0.09. When these values were statistically analyzed, it showed that the drug was significantly effective with p value < 0.01.

**TABLE No. 9 OVERALL EFFECT OF TREATMENT**

<table>
<thead>
<tr>
<th>Treatment Response</th>
<th>Total Effect of Treatment in %</th>
<th>Total Number of Patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Cured</td>
<td>0 – 33%</td>
<td>4</td>
<td>13.33</td>
</tr>
<tr>
<td>Improved</td>
<td>34 – 66%</td>
<td>19</td>
<td>63.33</td>
</tr>
<tr>
<td>Cured</td>
<td>67 – 100%</td>
<td>7</td>
<td>23.33</td>
</tr>
</tbody>
</table>
In the present study, overall effect of Treatment showed that, out of 30 Garbhini Chardi patients, showed that, 19 (63.33%) patients have improved, 7 (23.33%) patients have cured and 4 (13.33%) patients are not cured respectively to this clinical study.

**DISCUSSION**

*Garbhini Chardi* (vomiting in pregnancy) is a common symptom in obstetric practice. 50% of all pregnant women suffer from vomiting in pregnancy most probably in first trimester.

In this era, where life style and status of woman has changed woman shares equal responsibilities like males in almost all fields. They have to act both in house as well as at working place. In this condition, Vomiting in pregnancy interferes with woman’s normal day to day life.

Ayurvedic classics has described many formulations for Management of *Garbhini Chardi* which are easily available.

In the present study 30 patients were studied in a single group.

Drug: *Bilwa majja churna* 3gm with *Laajambu* BD half hour before meal.

*Bilwa Majja* reduces vitiated *doshas* with its *madhura rasa*, *katu Vipaka* and *Laghu Ruksha Gunas*. The content of the drug selected ie. *Bilwa majja churna* which is *Vatakaphahara*, *Aampachaka* and Improves Agni. In Ayurveda *samprapti vighatan* is a *Chikitsa Mantra*. *Bilwa Majja* reduces *garbhini Chardi* by counteracting the increased *Doshas*.

During pregnancy, there is considerably increased gastric secretions (Hytten 1991). *Bilwa Majja* significantly reduces the gastric secretions.
In vomiting, purgation therapy has been advised by Acharyas, *Apakwa Bilwa Majja* also acts as Laxative and antihelmintic. Charaka44 explained *Bilwa majja* as *Sangrahaka, Deepana, and Kaphavataprashamana*.

In Sagarbha avastha, *Vilomgati of Vayu* occurs. Due to *Snigdha* and *Ushna* properties of *Bilwa*, the vitiated *vata dosha* is controlled. As the *Kapha* and *Pitta doshas* are *Dravadhatu*, the *Ushna* and *Grahi guna* of *Bilwa* reduces the *dravata* of these *doshas*, and hence the *uktursha* of *doshas* are controlled and Vomiting may be reduced.

In pregnancy, there is *Agnimandhya*.* Bilwa* has *Agnideepana* property and due to this, the Gastric irritation decreases. *Bilwa and Majja* also increases digestion in pregnant women due to its *Pachaniya Guna*. Due to increased Gastric secretions in pregnancy, Patient develops Gastritis, it enhances vomiting or viceversa, due to persistent vomiting there develops Gastritis in the patient. *Bilwa majja* has been studied for its Antiulcerogenic activity and Antiinflammatory activity. Its Anti-inflammatory property is considered important because *Bilwa* also possess anti-ulcerogenic property as majority of Anti-inflammatory substances induces Gastritis.

*Bilwa majja* has Anti-oxidant activity. It is due to presence of Flavones, Isoflavones, Flavonides, Coumarin, Lignans.. It is a very important source of supplement in pregnant women. It is also used for treatment of various infectious diseases. The Aqous, Petroleum, Ether, Ethanol extracts of *Bilwa* exhibit antimicrobial activity against *E-Coli, S.Pneumonia, S. typhi*. In the present clinical study, 30 patients have been treated with trial drug. The observations were made on the different parameters including clinical findings. The Incidental study like age of the patient, occupation, educational status socioeconomic status, gravid status evidence of vomiting during previous pregnancy were carried out.

**CONCLUSION**

1. Vomiting in pregnancy is the commonest disorder found in between 19 to 23 years of Age.
2. It is found more in primi gravida and also women who had nausea and
vomiting in their first pregnancies are more prone to have such symptoms in subsequent pregnancy.

3. Vomiting in pregnancy is more prone to develop in housewife / non working women and in women with low socioeconomic status.

4. *Bilwa majja* is very effective in the management of *Garbhini chardi*.

5. Besides *chardi*, the oral administration of *Bilwa majja* also reduced symptoms like nausea, giddiness, Epigastric burning and headache.

6. With the use of *Bilwa majja* in pregnancy didn’t find any adverse effect.

7. Stress plays significant role in initiating vomiting in pregnant patient.

8. Early medication and following dietetic regimen is the key to overcome symptoms. Appropriate steps should be taken to diagnose and treat possible underlying disease.

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11) Gogate Vishnu Mahadev .Dravyaguna
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Source of Support: NIL
Conflict of Interest : None declared