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A CLINICAL STUDY ON THE EFFICACY OF BILWA MAJJA CHURNA WITH LAAJAMBU IN THE MANAGEMENT OF GARBHINI CHARDI.

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ABSTARCT

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[1] .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*[2]. Acharya Charaka &Vagbhata has included *Garbhini Chardi* under *Dwishtartaja chardi*[3] [4].

Acharya Vagbhata & Bhavaprakasha has enumerated Dauhadra[5] [6] in etiology. Dalhana has explained non fulfillment of *Dauhruda* causes vomiting. According to Madhavanidana, one of the cause of *Chardi* is Apanasatva[7] 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 (Ku llender s Kallen B 1976) there may be a weak association between Meclozine and

congenital eye defect 9Shapiros s 1978) Promethazine may be associated with an increased incidence of congenital dislocation of the hips [huff P.S 1980] .

Nausea and vomiting in pregnancy can be extremely debilitating for the patient And 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 preparation are very gentle and potent .they can be used for long term treatment without any harm to the fetus. the treatment of *Garbhini chardi* by *Bilwa majja churna* with *laajambu* is mentioned in Yogaratnakar[8].

AIM AND OBJECTIVES:

To study the efficacy of *Bilwa majja churna* with *laajambu in Garbhini 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 *Lajjambu 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.

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 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 :

1. Hb%
2. Blood Grouping and RH typing
3. RBS
4. HIV
5 HbsAg.
5. VDRL
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

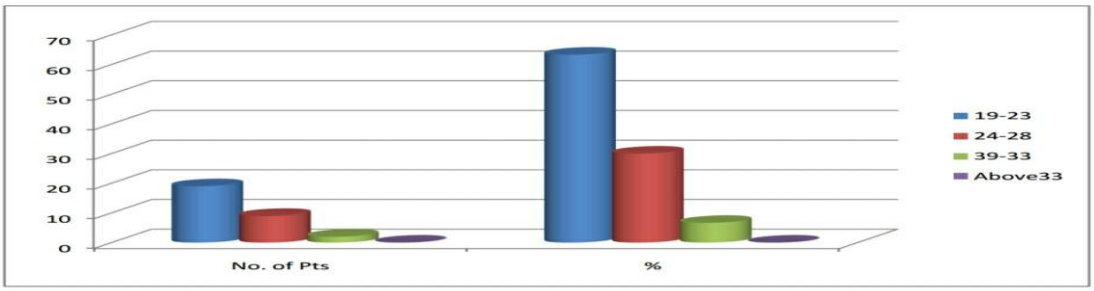
1. P > 0.05 is NS (Non Significant)
2. P < 0.05 and > 0.001 is S (Significance)
3. P < 0.001 is HS (Highly significant)

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

TABLE NO – 1 INCIDENCE ACCORDING TO AGE OF PATIENT N = 30

Sr. No.	Age Group	Total	
		No. of Pts	%
1	19 – 23	19	63.33
2	24 – 28	9	30
3	29 – 33	2	6.66
4	above 33	0	0

G – 1 INCIDENCE ACCORDING TO AGE OF PATIENT



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

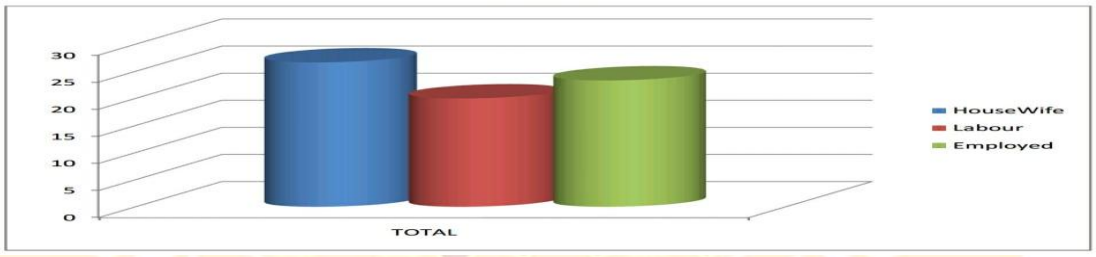
TABLE NO. 2 INCIDENCE ACCORDING TO OCCUPATIOBNAL STATUS

N = 30

Sr. No.	Occupational Status	Total	
		No. of Pts	%
1	House Wife	17	56.66
2	Labor worker	6	20
3	Employed	7	23.33

G–2 INCIDENCE ACCORDING TO OCCUPATIONAL STATUS

GRAPH



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

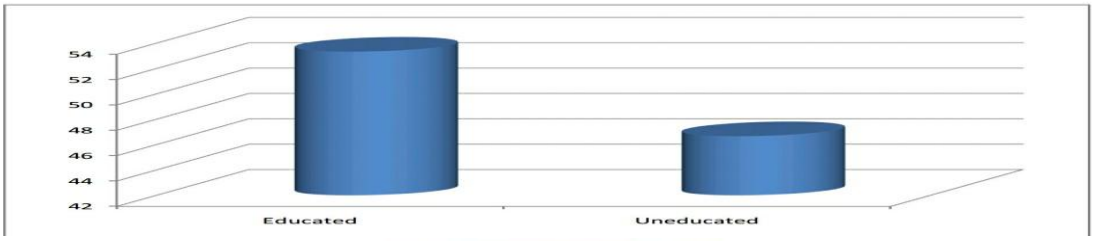
TABLE NO.–3 INCIDENCE ACCORDING TO EDUCATIONAL STATUS

N = 30

Sr. No.	Educational Status	Total	
		No. of Pts	%
1	Educated	17	6.66
2	Uneducated	13	43.33

G–3 INCIDENCE ACCORDING TO EDUCATIONAL STATUS

GRAPH



In the present study 56.66% patients are educated and 43.33% patients are uneducated.

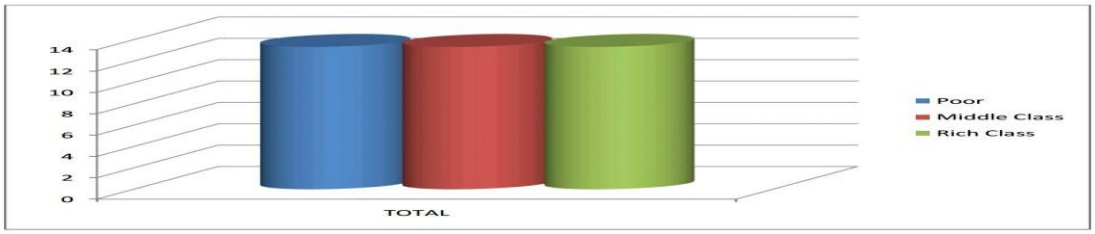
TABLE NO. 4 INCIDENCE ACCORDING TO SOCIO ECONOIC STATUS

N = 30

Sr. No.	Socioeconomic Status	Total	
		No. of Pts.	%
1	Poor	14	46.66
2	Middle Class	12	40
3	Rich Class	4	13.33

G–4 INCIDENCE ACCORDING TO SOCIOECONOIC STATUS

GRAPH



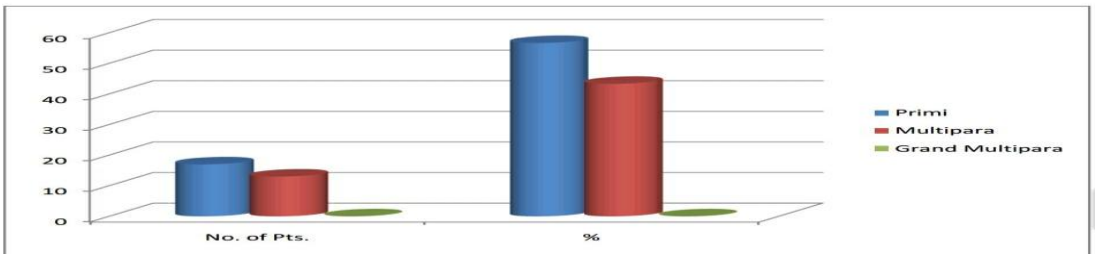
Out of 30 patients 46.66% patients belonged to Poor class, 40% patients belonged to Middle class and 13.33% patients belonged to Rich class.

TABLE NO. 5 INCIDENCE ACCORDING TO GRAVID STATUS N = 30

Sr. No.	Parity	Total	
		No. of Pts	%
1	Primi	17	56.66
2	Multipara	13	43.33
3	Grand Multipara	0	0

G–5 INCIDENCE ACCORDING TO GRAVID STATUS

GRAPH



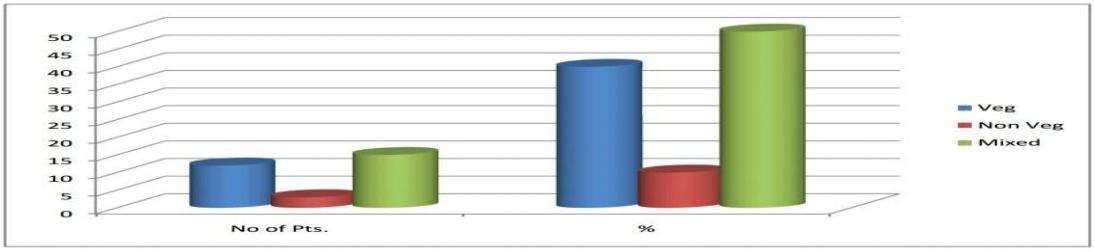
In the present clinical study of 30 patients 56.66% patient were Primi and 43.33% patients were Multiparous.

TABLE NO. 6 INCIDENCE ACCORDING TO DIET N = 30

Sr. No.	Diet	Total	
		No. of Pts.	%
1	Veg	12	40
2	Non Veg	3	10
3	Mixed	15	50

G–6 INCIDENCE ACCORDING TO DIET

GRAPH



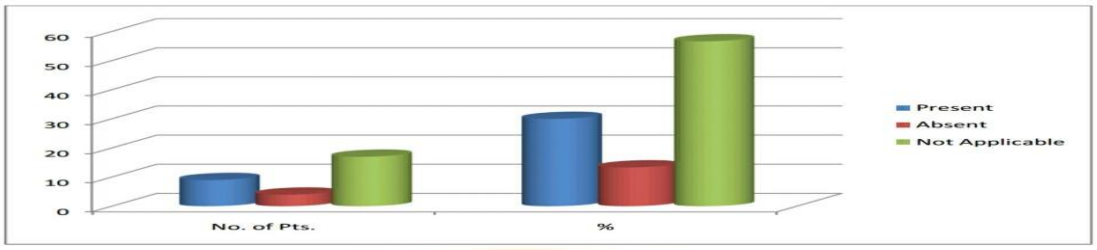
In the present study, 40% patients are Vegetarian, 10% are non Vegetarian and 50% patients take Mixed diet.

TABLE NO. 7 INCIDENCE ACCORDING EVIDANCE DURING PREVIOUS PREGANCY N = 30

Sr. No.	Evidence during prev. pregnancy	Total	
		No. of Pts	%
1	Present	9	30
2	Absent	4	13.33
3	Not applicable	17	56.66

G – 7 INCIDENCE ACCORDING EVIDANCE DURING PREVIOUS PREGNANCY

GRAPH



In the present clinical study of 30 patients 17 patients were Primi,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 INCIDANCE ACCORDING TO SYMPTOMATOLGY.

Symptom	BT Means +S	Follow Up	AT Mean±SE	df	T Value	P Value	Effectiveness	Remark
Vomiting	2.30±0.14	AT1	2.20±0.15	29	1.770	>0.05	4.35	NS
		AT 2	1.60±0.12		8.15	<0.01	30.43	HS
		AT 3	1.03±0.130		9.89	<0.01	55.07	HS
Nausea	1.00±00	AT 1	0.93±0.05		1.42	>0.05	6.67	NS
		AT 2	0.63±0.09		4.15	<0.01	36.67	HS
		AT 3	0.43±0.09		6.13	<0.01	56.67	HS
Gidiness	1.00±0.00	AT 1	0.83±0.07		2.38	<0.05	16.67	S
		AT 2	0.70±0.09		3.49	<0.01	30.00	HS
		AT 3	0.57±0.09		4.69	<0.01	43.33	HS
General Weakness	1.00±0.00	AT 1	0.87±0.06		2.08	<0.05	13.33	S
		AT 2	0.67±0.090		3.78	<0.01	33.33	HS
		AT 3	0.47±0.09		5.77	<0.01	55.33	HS

- **NS-** Non- significant.
- **S-** Significant.
- **HS-** Highly significant.

G – 8 GRAPH

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 high 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

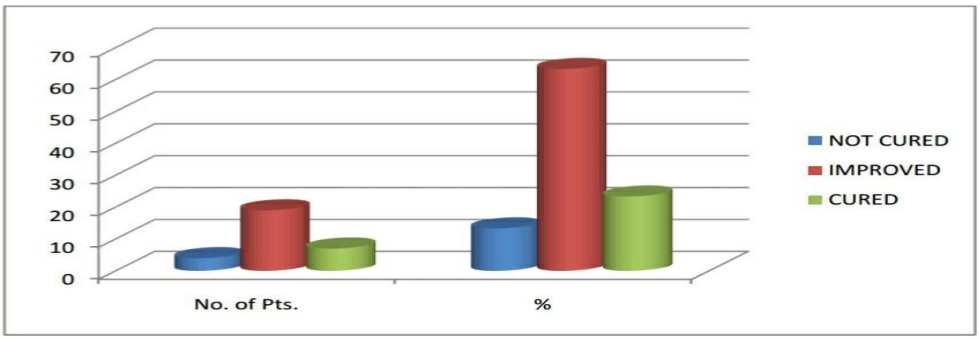
The mean score of the symptom which was 1.00 + 0.00 before treatment reduced to 0.87 + 0.06 after first follow up, after second follow up, it is reduced to 0.67 + 0.090, after third follow up the mean score of vomiting was reduced to 0.47 + 0.09. When these values were statistically analyzed, it showed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

TABLE NO.9 OVERALL EFFECT OF TREATMENT

Treatment Response	Total Effect of Treatment in %	Total Number of Patients	%
Not Cured	0 – 33%	4	13.33
Improved	34 – 66%	19	63.33
Cured	67 – 100%	7	23.33

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.

G-9 **GRAPH**



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 Acharyaas, *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 *utklesha* of *doshas* are controlled and Vomiting may be reduced[9 10 11 12].

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 persistant vomiting there develops Gastritis in the patient. *Bilwa majja* has been studied for its Antiulcerogenic activity and Antiinflamatory activity. Its Anti-inflamatory property is considered important because *Bilwa* also possess anti-ulcerogenic property as majority of Anti-inflamatary substances induces Gastritis [13].

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* exibit 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 house wife / 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 dietic regimen is the key to overcome symptoms. Appropriate steps should be taken to diagnose and treat possible underlying disease.

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