

**“A CLINICAL STUDY OF YASHTIMADHU CHURNA WITH ANUPAN  
KSHAUDRA IN THE MANAGEMENT OF GARBHINI PANDU”.**

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## INTRODUCTION

Every woman has the innate desire to experience the joys of motherhood. Women have got divine status in the world; She is the centre of Supraja nirmiti. Our Acharya has stated the Garbhini paricharya. It helps for Supraja nirmiti.

अपल्यानां मूलं नार्याः परं नृणाम् । -च.चि.३०/४

Women are the main stem of family. Stree has a divine role to play in a Dharam, Poshan and Utpatti of Garbha.

Anaemia is defined as reduction in circulating haemoglobin mass below the critical level. WHO has accepted up to 11gm% as the normal haemoglobin level in pregnancy. Therefore any haemoglobin

concentration in the peripheral blood, below 11gm% in pregnancy, should be considered as anaemia. However in India and most of the other developing countries the lower limit is often accepted as 10 gm%.

**Incidence:** Anaemia in pregnancy is present in very high percentage of pregnant women in India. However according to WHO, in India incidence of anaemia pregnancy has been noted as high as 40-80%.

Ayurveda has stated various types of Garbhoupdrava which explains - “The disorders which occurs in a garbhini due to presence of Garbha are called as Garbhoupdrava.”

In respect of Garbhoupdrava, **Acharya Harita** has described 8 Garbhoupdrava.

शोष हल्लास च्छर्दि शोफ ज्वर स्तथारुचि।

अतिसारो विवर्णत्वं अष्टौ गर्भोपद्रवाः स्मृतः ॥

-हा. सं. तृतीयस्थान. ५१/१

Here Vivarnta (pallor) can be taken as pandu because Vivarntva (pallor) is the main sign and symptoms of pandu. Garbhini Pandu is the Diseases of Rasavaha strotasa. In Ayurveda Garbha poshan is totally depended on rasadhātu----

1. Garbhini 2. Stannya Pusthi 3. Garbha

### AIM

- ❖ To study the effect of Yashtimadhu Churna with anupan Kshaudra (madhu) in the Management of Garbhini Pandu.

### OBJECTIVES

- ❖ To study the Garbhini Pandu in detail.
- ❖ To study the effect of Yashtimadhu Churna in Garbhini Pandu.
- ❖ To compare the efficacy of Yashtimadhu churna with Ferrous Fumarate in Garbhini Pandu.

### PURPOSE OF THE TOPIC

Iron Deficiency Anaemia is a global problem affecting on the health of the pregnant women. Anaemia is a global health issue that has significant consequences for the individual health and socio-economic development. The most common cause of anaemia in developing nation is “Iron Deficiency”.<sup>[9]</sup>

Iron deficiency during pregnancy and lactation has important consequences for the future generations, as iron deficiency anaemia increase the risk for preterm labour, low birth weight, infant mortality and predicts iron deficiency in infant after four months of age. It also leads to cognitive deficits and intellectual performance among school children.<sup>[10]</sup>

According to modern medicine, there is disproportionate increase in plasma, RBC volume and haemoglobin mass during pregnancy. In addition, there is marked demand of extra iron

during pregnancy especially in the second half. Even an adequate diet cannot provide the extra iron thus result in iron deficiency anaemia in pregnancy. In modern medicine, ferrous gluconate, ferrous fumarate or ferrous succinate is used to correct anaemia. Drawbacks of ferrous gluconate, ferrous fumarate or ferrous succinate are intolerance, epigastric pain, nausea, vomiting, diarrhoea or constipation, unpredictable absorption rate. For avoiding these drawbacks I selected “Yastimadhuchurna” for Garbhini pandu.<sup>[15]</sup>

## REVIEW OF LITERATURE

- The references related to Yashtimadhu churna, Garbhini Pandu and Ferrous Fumarate will be taken from different literary sources of ayurvedic text and modern text also.
- Previous work done related to Garbhini pandu will be reviewed as.  
-Punarnava Mandoor, Navayas Loha, Lohasav, Tapyadi Loha, Dadhimadi Grith, Yograj Rasayan, Aamlaki, etc.

## DRUG REVIEW

□ Garbhini pandu is rasa-pradoshaj vyadhi according to charaka:

अश्रद्धा च अरुचिश्चास्य वैरस्यमरसजता।

हृल्लासो गौरवं तन्द्रा सान्द्रमर्दो ज्वरस्तमः॥

पाण्डुत्वं स्त्रोतसां रोधः क्लैब्यं सादः कृशाग्ङ्ता।

नाशो अग्नेरयथाकालं वलयः पलितानि च॥ - च.सू.२८/९

Yashtimadhu not only acts as Maiddya rasayan but also works on Rasavaha and Raktavaha strotas.

Acharya Charak stated that Rasayan chikitsa increases sapta dhatu in sharir, that's why I have chosen this drug from “Gadnigraha” for treatment of Garbhini Pandu.

पाण्डुरोगहरं लिहयाच्चूर्णं क्षौद्रं विमिश्रिताम्।

यष्टयाहवस्य प्रयत्नेन तत्कवाथं वा पिबेन्नरः॥

(गदनिग्रहं द्वितीयः कायचिकित्सा खण्ड पाण्डुरोग चिकित्साध्याय/ ३३)

**Glycerrza Glabra****MATERIALS AND METHODS****MATERIALS**

- Patients of garbhini pandu.
- Yashtimadhu churna (6 gm = ½ karsha, 3 gm twice a day)

अत्यंतकशुष्कं यदद्रव्यं सुपिष्टं वस्त्रं गालितम् ।

तत्स्याच्चूर्णं रजः क्षौद तन्मात्रा कोलसम्मिता ॥

-शा.सं.म.खं.६/१

With anupan kshaudra = 6 gm/dose

लिहेच्चूर्णं द्रवैः सर्वैर्घृत आद्वैर्द्विगुणोन्मितैः ।

पिबेच्चतुर्गुणैरेव चूर्णं मालोडितं द्रवैः ॥

-शा.सं.म.खं.६/२

**METHODS****❖ Selection of patient**

- Random selection of patient from OPD and IPD of Stree Roga Prasuti tantra department.

**❖ Period**

- 60 days for experimental group and 60 days for control group for individual. Follow up monthly.

**❖ Selection of patient by criteria given below**

- Trial group – Yashtimadhu Churna
- Control group- Tab. Ferrous fumarate

**❖ Method of preparation of drug**

- Preparation of Yashtimadhu churna will be prepared according to Text.

<b>Groups</b>	<b>Trial Group</b>	<b>Control Group</b>
<b>No. Of Patients</b>	30	30
<b>Drug</b>	Yashtimadhu churna	Tab. Ferrous fumarate
<b>Dose</b>	3 gm	200mg
<b>Sewan Kal</b>	Twice a day after meal	Once a day after meal
<b>Duration</b>	2 months	2 months
<b>Anupan</b>	Kshaudra (Madhu)	Water
<b>Follow Up</b>	After every 15 days	After every 15 days

**❖ INCLUSION CRITERIA**

- Pregnant woman of 20-35 years age group.
- II<sup>nd</sup> and III<sup>rd</sup> trimester.
- Hb% between 5 gm% to 9 gm%.
- Iron deficiency anaemia.

**❖ EXCLUSION CRITERIA**

- Age below 20 years and above 35 years.
- I<sup>st</sup> trimester.
- Any known active infective pathology.
- Anaemia due to major diseases.
- Anaemia due to bleeding disorders.
- Hb gm% below 5 gm% and above 9 gm%.
- All types of anaemia other than Iron deficiency anaemia.

❖ **CRITERIA FOR ASSESSMENT**

- The effect of drug will be evaluated with the help of the following observations. The observations are based upon signs and symptoms of Garbhini Pandu with reference to rise in haemoglobin level.

Sr. No.	Assessment criteria	On the day of examination (2nd trimester)	After 15 days	After 30 days	After 45 days	After 60 days
1	Vaivarnya (Pallor)					
2	Aarohanaayas(Exertional dyspnoea)(MRC Scale)					
3	Daurbalya(Fatigue)					
4	Agnimandya (loss of appetite)					
5	Hrudspandan (Palpitation)					
6	Hb gm%					

❑ **GRADATION OF SYMPTOMS**

Sr. No.	Symptom	Grade 0	I (+)	II (++)	III (+++)
1	<b>Vaivarnya (Pallor)</b>	No Pallor	Pallor in conjunctiva	Pallor in conjunctiva and Nails	Pallor in Whole body
2	<b>Aarohanaayas (Exertional dyspnoea) (MRC Scale)</b>	No Dyspnoea on level or uphill	Only while walking on level or uphill	Walks slower than person of same age	Stops after walking 100 yards
3	<b>Daurbalya(Fatigue)</b>	No Fatigue	Not affecting his daily activities.	Affecting his daily activities.	Fatigue without any activity.
4	<b>Agnimandya (loss of appetite)</b>	Interval between two meal 4-6 hrs	Interval between two meal 6-8 hrs	Interval between two meal 8-10 hrs	Interval between two meal 10-12 hrs
5	<b>Hrudspandan (Palpitation)</b>	Absent	Associated with Fatigue	Associated with Psychiatric illness	Associated with Fatigue & Psychiatric illness
6	<b>Hb gm%</b>	Above 10gm%	8-10gm%	7-8gm%	Below 7 gm%

❖ **LAB INVESTIGATIONS**

- Haemogram.
- Peripheral blood Smear.
- BT CT.

❖ **TOTAL ASSESSMENT RESULT**

- ❖ Percentage in relief in symptoms will be calculated according to difference between total symptoms score of pre-treatment and after treatment.

❖ **OVERALL ASSESSMENT OF THE RESULTS.**

Significantly improved	Haemoglobin increased by $\geq 2$ gm% . $\geq 75\%$ relief in signs and symptoms.
Markedly improved	Haemoglobin increased by 1 to 2gm%. 50-75% relief in signs and symptoms.
Improved	Haemoglobin increased by 0.5 to 1gm% 25-50% relief in signs and symptoms.
Insignificantly improved	Haemoglobin increased by 0 to 0.5gm% > 25% relief in signs and symptoms.

**OBSERVATIONS**❑ **Age wise Distribution**

Age (in yrs)	Gr. A	%	Gr. B	%	Total	%
18-22	2	6.67	0	0.00	2	3.33
22-26	16	53.33	16	53.33	32	53.33
26-30	10	33.33	10	33.33	20	33.33
30-35	2	6.67	4	13.33	6	10.00
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 53.33 % were belonging to 22-26 age Group.

❑ **Religion wise Distribution**

Religion	Gr. A	%	Gr. B	%	Total	%
Hindu	28	93.33	29	96.67	57	95
Muslim	2	6.67	1	3.33	3	5
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 95 % were belonging to Hindu religion.

❑ **Education wise Distribution**

Education	Gr. A	%	Gr. B	%	Total	%
Uneducated	6	20	12	40	18	30
Primary school	4	13.33	3	10	7	11.67
Middle school	4	13.33	3	10	7	11.67
High school	4	13.33	2	6.67	6	10
Graduate	12	40	10	33.33	22	36.67
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 36.67% were graduate.

❑ **Occupation wise Distribution**

Occupation	Gr. A	%	Gr. B	%	Total	%
House wife	17	56.67	13	43.33	30	50
Labour	6	20	5	16.67	11	18.33
Service	7	23.33	12	40	19	31.67
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 31.67% were in service.

❑ **Socio-economic status wise Distribution:**

Socio-economic status	Gr. A	%	Gr. B	%	Total	%
Poor	12	40	7	23.33	19	31.67
Middleclass	8	26.67	10	33.33	18	30
Higher middleclass	5	16.67	4	13.33	9	15
Rich	5	16.67	9	30	14	23.33
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 31.67% were found in Poor Status.

❑ **Diet wise Distribution.**

Diet	Gr. A	%	Gr. B	%	Total	%
Vegetarian	19	63.33	23	76.67	42	70
Mixed	11	36.67	7	23.33	18	30
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 70% were Vegetarian.

❑ **Gravidae wise Distribution**

Gravidae	Gr. A	%	Gr. B	%	Total	%
Primi	12	40	7	23.33	19	31.67
2nd	6	20	9	30	15	25
Multy	12	40	14	46.67	26	43.33
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 43.33% were Primi.

❑ **Prakruti wise Distribution**

Prakruti	Gr. A	%	Gr. B	%	Total	%
Vat-pitta	10	33.33	4	13.33	14	23.33
Vat-kapha	3	10	7	23.33	10	6.67
Pitta-vat	5	16.67	4	13.33	9	15
Pitta-kapha	1	3.33	4	13.33	5	8.33
Kapha-vat	7	23.33	9	30	16	26.67
Kapha-pitta	4	13.33	2	6.67	6	10
<b>Total</b>	30	100	30	100	60	100



- Maximum Garbhini i.e. 26.67% were Kapha -Vata.

❑ **Koshtha wise Distribution**

Koshtha	Gr A	%	Gr B	%	Total	%
Krura	11	36.67	9	30	20	33.33
Mrudu	14	46.67	12	40	26	43.33
Madyama	5	16.67	9	30	14	23.33
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 43.33% were having Madhyam Koshtha.

❑ **Abhyavaranshakti wise Distribution:**

Abhyavaranshakti	Group A	%	Group B	%	Total	%
Pravara	0	0	1	3.33	1	1.67
Madhyam	18	60	19	63.33	37	61.67
Avara	12	40	10	33.33	22	36.67
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 61.67% were having Madhyam Koshtha.

❑ **Jaranshakti wise Distribution:**

Jaranshakti	Gr A	%	Gr B	%	Total	%
Pravara	4	13.33	5	16.67	9	15
Madhyam	20	66.67	20	66.67	40	66.67
Avara	6	20	5	16.67	11	18.33
<b>Total</b>	30	100	30	100	60	100

- Maximum Garbhini i.e. 66.67% were having Madhyam Koshtha.

❑ **Effect of Treatment on signs & symptoms of Garbhini pandu.**

**Group A**

Signs and Symptoms	N	Mean Score		S.D. +-		S.E.		P	RESULT
		B.T.	A.T.	B.T.	A.T.	B.T.	A.T.		
Vaivaranya	25	1.667	0.833	0.606	0.592	0.11	0.108	<0.001	Highly Significant
Aarohanaayas	25	2.1	1.133	0.959	0.819	0.175	0.149	<0.001	Highly Significant
Daurbalya	24	1.367	0.567	0.49	0.504	0.089	0.092	<0.001	Very Significant
Agnimandya	24	1.5	0.633	0.508	0.718	0.092	0.131	<0.001	Very Significant
Hrudspandan	14	0.83	0.333	0.53	0.479	0.096	0.087	<0.001	Significant

Effect of Treatment on Haematological Investigations of Garbhini pandu.

Group A

Signs and Symptoms	N	Mean Score		S.D. +-	S.E. +-	T	P	RESULT
		B.T.	A.T.					
HB	30	8.537	9.233	0.302	0.055	12.62	<0.001	Significant
RBC	30	3.994	4.086	0.081	0.014	6.18	<0.001	Significant
PCV	30	27.51	28.7	0.654	0.119	9.98	<0.001	Significant
MCV	30	68.89	70.13	1.91	0.35	3.55	<0.001	Significant
MCH	30	21.37	22.57	0.828	0.151	7.93	<0.001	Significant
MCHC	30	31.33	32.14	2.12	0.387	2.1	<0.05	Significant

Effect of Treatment on signs & symptoms of Garbhini pandu.

Group B

Signs and Symptoms	N	Mean Score		S.D. +-		S.E.		P	Result
		B.T.	A.T.	B.T	A.T.	B.T	A.T		
Vaivarnya	27	1.433	0.467	0.504	0.681	0.092	0.124	<0.001	Highly Significant
Aarohanaayas	24	1.867	0.667	0.773	0.479	0.133	0.087	<0.001	Highly Significant
Daurbalya	25	1.2	0.367	0.449	0.49	0.082	0.089	<0.001	Very Significant
Agnimandya	29	1.567	0.433	0.568	0.504	0.103	0.092	<0.001	Very Significant
Hrudspandan	16	0.867	0.267	0.507	0.449	0.092	0.082	<0.001	Significant

Effect of Treatment on Haematological Investigations of Garbhini pandu:

Group B

Signs and Symptoms	N	Mean Score		S.D. +-	S.E. +-	T	P	Result
		B.T.	A.T.					
HB	30	8.537	9.8	0.319	0.058	14.64	<0.001	Significant
RBC	30	4.086	3.938	0.111	0.02	6.25	<0.001	Significant
PCV	30	28.51	27.11	0.879	0.161	8.72	<0.001	Significant
MCV	30	68.83	70.18	2.85	0.52	2.59	<0.001	Significant
MCH	30	21.61	23.04	1.1	0.201	7.139	<0.001	Significant
MCHC	30	30.44	32.89	3.61	0.659	3.72	<0.05	Significant

Comparative Analysis of Group A & Group B.

Symptoms	N	Mean Score of Gr. A	Mean Score of Gr. B	S.D. +- Gr. A	S.D. +- Gr. B	S.E. +- Gr. A	S.E. +- Gr. A	P
Vaivarnya	51	1.08	1.07	0.276	0.271	0.055	0.053	0.99
Aarohanaayas	51	1.16	1.385	0.374	0.496	0.074	0.097	0.161

<b>Daurbalya</b>	49	1.125	1.08	0.337	0.276	0.068	0.055	0.783
<b>Agnimandya</b>	53	1.083	1.172	0.282	0.384	0.057	0.071	0.567
<b>Hrudsandana</b>	30	1.071	1.125	0.267	0.341	0.071	0.085	0.808

#### □ Comparative Analysis of Group A & Group B.

Haematological values	Mean of diff. Gr A	Mean of diff.Gr B	Diff. of Diff. Of Mean	Comb SD	SE	Unpaired t value	p value	Nature
<b>Hb%</b>	60	0.697	0.853	0.31	0.08	1.95	>0.05	<b>Insignificant</b>
<b>RBC</b>	30	0.092	0.127	0.097	0.025	1.364	>0.05	<b>Insignificant</b>
<b>PCV</b>	60	1.193	1.4	0.775	0.2	1.032	>0.05	<b>Insignificant</b>
<b>MCV</b>	60	1.243	1.353	2.43	0.627	0.175	>0.05	<b>Insignificant</b>
<b>MCH</b>	60	1.2	1.433	0.973	0.251	0.928	>0.05	<b>Insignificant</b>
<b>MCHC</b>	60	0.813	2.453	2.961	0.764	1.94	>0.05	<b>Insignificant</b>

#### □ Table Showing Overall Effect of Theory on 60 patient On of Garbhini pandu.

##### Group A

Result	Group A		Group B	
	No Of Pt.	%	No Of Pt.	%
<b>Complete remission (&gt;75 %)</b>	2	6.67%	7	23.33%
<b>Marked improvement (51-75%)</b>	12	40%	19	63.33%
<b>Moderate improvement (26-50%)</b>	15	50%	4	13.33%
<b>Mild Improvement (&lt;25%)</b>	1	3.33%	0	00%

## DISCUSSION

### Comparison of treatments

#### Group A

Patients in this group were treated with Yasthimadhu Churna. Highly significant relief was obtained in symptoms of Vivarnatva, Shrama Shwasa, Agnimandya, Hrudspandan. Also regarding haematological result significant result was obtained in Hb, RBC, PCV, MCV, MCH & MCHC. Yasthimadhu Churna reduces agnimandya and also didn't causes nausea, vomiting, and constipation.

#### Group B

Patients in this group were treated with Ferrous fumarate highly significant but less than group A relief was obtained in symptoms of Vivarnatva, Shrama shwasa, Akshikutashoth, Agnimandya, Bhrama. Also regarding haematological result significant result was obtained in

Hb, RBC, PCV, MCV, MCH and MCHC. Drawbacks of Ferrous fumarate are nausea, vomiting, and constipation.

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