



Case Study

EFFECT OF DHATRI LOUHA WITH DRAKSHA GHRITA IN GARBHINI PANDU W.S.R.TO IRON DEFICIENCY ANAEMIA (I.D.A)

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ABSTRACT

For a woman, pregnancy is a pleasant life event marked by progressive anatomical, physiological, and biochemical changes that affect not only the reproductive organs but the entire body. Unfortunately in developing countries, nutrient deficiencies have made anemia a significant contributor to both mortality and morbidity. **Objective:** This study was carried out to know the effect of *Dhatri louha* with *Draksha ghrita* in *Garbhini Pandu*. **Material and Methods:** A patient aged 24 years suffering from anemia in pregnancy was selected. She was administered with *Dhatri louha* 500mg twice daily and *Draksha ghrita* 10ml twice daily before meal for the period of 60 days. **Result:** The study demonstrated a positive effect on the cardinal symptoms of *Garbhini Pandu*, along with improvements in Hb%, RBC count, PCV, MCH, MCHC, MCV, serum iron, and serum ferritin levels. **Conclusion:** This study has shown that the combined effect of both drugs results in leads to improved *Agni*, enhanced iron absorption, improved haemoglobin, and alleviation of the signs and symptoms of *Garbhini Pandu*.

INTRODUCTION

Pregnancy is a remarkable and beautiful phase in a woman's life. As the fetus develops in the womb, a woman experiences numerous physiological changes. Nutritional demands are significantly higher during this time, and inadequate nutrition can result in various health issues for the expectant mother, *Garbhini Pandu* is one of them.


The World Health Organization (WHO) defines anemia in pregnancy as a hemoglobin concentration below 11gm% and a hematocrit under 33%^[1]. The CDC (Center for Drug Control) suggests a cut off point of 11gm% for the 1st and 3rd trimesters, and 10.5gm% for the 2nd trimester.

Magnitude of Problem

Anemia is the most prevalent medical condition during pregnancy, leading to higher rates of maternal morbidity and mortality.

The National Family Health Survey-3 (2005-2006) reported that 57.9% of pregnant women suffer from anemia^[2]. Additionally, the FOGSI-WHO study on maternal mortality found that 64.4% of women who died had hemoglobin levels below 8gm%, and 21.6% had levels below 5gm%^[3].

Anaemia in pregnancy, or *Garbhini Pandu*, is not mentioned directly in *Ayurvedic samhitas*, although *Pandu*, or anemia, is thoroughly detailed. This could be because our *Acharyas* placed a greater focus on *Garbhini Paricharya*, or pregnancy regimens, which are no longer followed in the modern period. Pregnant women should be treated like *Poornameva Tailapatram*, or pots loaded with oil, according to *Acharya Charaka*^[4]. As such, pharmaceutical therapy (*Shamanoushadhas*) should be the only course of treatment recommended during pregnancy, instead of purifying therapy (*Shodhana karma*). According to *Kashyapa samhita*^[5], the characteristics of *Annada jwaradirogas* such as fever and other illnesses are thought to be similar to those of *Garbhini*. Considering this, it is essential to have a medication that is effective for *Panduroga*, safe, affordable, and possesses qualities such as *Hridayabalaprada*, *Raktaprasadana*, *Shonitasthapana*, *Rasayana*, *Dhatuposhana* and

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Pushiprada. With these qualities in mind, *Dhatri Louha* and *Draksha Ghrita* were chosen for study.

Case Report

Mrs. X, wife of Mr. Y, a resident of Jaipur, Rajasthan, from a middle socioeconomic background, is a 24-year-old primigravida with a gestational age of 24 weeks and 4 days. She presented to Prasuti evam Stri roga OPD in N.I.A. Hospital, Jaipur, with the following complaints:

1. Amenorrhea for the past 6 months.
2. General weakness, loss of appetite, and easy fatigability for the last 2 months.
3. Breathlessness on exertion for the past 15 days.

H/O present complaints: The patient complains of weakness and easy fatigability for the past 2 months, which has gradually worsened over the last 15 days to the point that she becomes tired while performing household activities. She also reports breathlessness on exertion for the past 15 days, feeling short of breath after climbing two flights of stairs.

Trimester History

First Trimester

- Spontaneous conception.
- No history of radiation or any teratogen exposure.
- No history of any drug intake.
- No history of hyperemesis.
- No history of fever with rashes, burning micturition, pain abdomen, discharge or bleeding per vaginam.

Second trimester

- She perceived quickening at 4th month
- She has received one dose of tetanus immunization from local dispensary.
- No history of high BP records, pedal edema, headache, epigastric pain, blurring of vision.
- No history of polyuria, polydipsia, polyphagia.
- No history of pain abdomen, discharge or bleeding per vaginam.

Past medical and surgical History

- There is no history of blood transfusion in the past, no any chronic illness.
- No known allergies
- No significant surgical history

Family History: Non-contributory

Personal History

- Diet: Vegetarian
- Appetite: Poor
- Bowel habit: Regular
- Bladder: Normal micturition
- Sleep: Disturbed

Menstrual History

- Age of menarche: 12 yrs
- Duration of menstrual blood flow: 4-6 days
- Regularity of menstrual cycle: Regular
- Pain during menses: Painless
- Interval b/w menses: 28-30 days
- Amount of bleeding: 2-3 pads/day
- Last menstrual period (LMP): 05/01/24
- Expected date of delivery (EDD): 11/10/24
- POG: 24 weeks 1 days (02/6/24)

Obstetric History: G₁P₀A₀L₀

- This is her first pregnancy
- No history of previous abortions.

Physical Examination

General Examination

- Height- 155cm
- Weight- 55Kg
- Temperature: 97.8°F
- Respiratory rate: 20/min
- Pulse rate -80 BPM
- Blood pressure -110/70 mm of Hg
- Pallor :- Present

Systemic Examination

- CVS -S1 S2 heard
- RS - BLAE clear, no added sounds or crepts heard.
- CNS- Conscious and well oriented to time, place and person.

Obstetric Examination

Inspection

- Abdomen uniformly distended.
- Linea nigra and stria gravidarum present.

Palpation-

- Uterine size corresponded to 24-26 week size
- Symphysiofundal height is 24.5cm
- Fetal movement- Present

Auscultation-

- Fetal heart rate is 138 bpm and regular.

Laboratory Investigation

- Blood Group and RH typing: A+ve
- Haemoglobin %: 8.4gm/dl
- PBS: Anisopoikilocytosis, microcytic and hypochromic.
- FBS: 82.1mg/dl
- HIV: Non-reactive
- HBSAG: Non-reactive
- Urine Examination -Nil abnormal
- VDRL: Non-reactive

- Serum TSH: 1.25µIU/mL
- USG: on 21 May 2024 single live intra-uterine pregnancy of 20 weeks and 4 days.

Final Diagnosis

- *Garbhini pandu* (twenty four years old female G1P0L0A0 with 24 weeks 1 day period of gestation with single live fetus with iron deficiency anemia).

Aim of the Management of Anemia

The goal of treating anemia during pregnancy is to ensure that the hemoglobin level reaches a safe

threshold by the time of delivery. This reduces the risk of complications for both the mother and baby.

Intervention

Since the gestational period was 24 weeks and 1 day, and the patient had moderate iron deficiency anemia, we started *Dhatri Louha* and *Draksha Ghrita* for her. This gave us enough time to monitor the treatment response before she reached full term. Additionally, these medications were safe, easy to administer, and affordable.

Drug	Dose	Route	Duration
<i>Dhatri louha</i> [6]	500mg BD with warm lukewarm water	Oral	60 days
<i>Draksha ghrita</i> [7]	10ml with lukewarm water	Oral	60 days

RESULT

Pandu Lakshanas

S.N.	Sign and Symptoms	B.T.	A.T.
1.	<i>Panduta</i> (Pallor)	Present	Absent
2.	<i>Daurbalya</i> (General weakness)	Present	Absent
3.	<i>Shwasa</i> (Dyspnoea)	Present	Absent
4.	<i>Shrama</i> (Fatigue)	Present	Absent
5.	<i>Aruchi</i> (Anorexia)	Present	Absent

Lab Investigation

S.N.	Investigation	B.T.	A.T.
1.	CBC- Hb%	8.4g/dl	11.1g/dl
	RBC Counts	3.48x10 ⁶ µl	3.87x10 ⁶ µl
	PCV	27.1%	34.5%
	MCH	24.10Pg	28.7Pg
	MCHC	31.0g/dl	32.2g/dl
	MCV	62.2fL	81.2fL
2.	Serum iron	38.64µg/dl	141.38µg/dl
3.	TIBC	571µg/dl	519µg/dl
4.	Serum ferritin	36.11ng/ml	149.2 ng/ml

The result indicate improvements not only in the symptoms of *Garbhini Pandu* but also in key blood parameters like hemoglobin (Hb%), red blood cell (RBC) count, packed cell volume (PCV), mean corpuscular hemoglobin (MCH), mean corpuscular hemoglobin concentration (MCHC), and mean corpuscular volume (MCV). Additionally, serum iron and ferritin levels, both essential for iron storage and transport, were shown to increase, which suggests an overall positive impact on the body's iron status and anemia management during pregnancy.

DISCUSSION

In Ayurveda text, *Panduroga* is described as separate chapter but there is no direct reference of *Garbhinipandu* (anaemia in pregnancy) and its treatment. *Acharya Charaka* in *Sharirasthana* has explained about "*Bala varna hani*" of *Garbhini* in sixth month of pregnancy^[8] which means feeling of weakness and loss of complexion. It is due to lack of nourishment of maternal *Dhatu*s as the *Rasa* is driven to nourish more and more the flesh and blood of foetus.

While describing symptoms of seventh month *Acharya Chakrapani* has mentioned *Shonita heenata*^[9] might be indicating decreased haemoglobin. All these symptoms are usually present in second trimester of pregnancy and may be due to physiological or pathological anaemia and can be considered as reference for *Garbhini Pandu*. *Acharya Harita* has described eight *Garbhopadravas* in *Harita samhita* and included *Vivarnatva*^[10], which appears to be pallor that accompanies Anaemia. "*Rasajashchayam Garbhaha*^[11]" means the growing foetus is nourished by the maternal *Rasa* and *Rakta*. So, mother needs more bioavailable iron in order to meet the demands of the growing foetus, growth of uterus and formation and maintenance of placenta. *Acharya Charaka* has also described *Panduroga* as a *Rasapradoshaja vikara*^[12].

Acharya Kashyapa has described that *Ahara rasa* of mother is divided into three parts. One part nourishes her own body, one part nourishes the *Garbha* and the one part is utilised for the nourishment of *Stana*^[13].

The *Panduroga* is a *Varnopalakshita vyadhi*, this disease described on the basis of its peculiar colour manifestation and is evident in the below given description- *Pandustu peetbhagardham ketakidhooli sannibham (Shabdarnava)*. The skin colour of the patient becomes like *Ketaki raja* (pollengrains of pandanus odoratissimus) which is similar to the combination of white and yellow colour in definite proportion.

Pandutva or pallor of skin is predominant feature and other *Lakshana* are *Alparaktata, Alpameda, Nissara* and *Sithhilendriya*. In addition there will be *Daurbalya, Karshya, Karnakshweda, Gatrapeeda, Akshikoota shotha, Sheernalomata, Hridrava, Shwasa, Bhrama* and *Annadwasha*^[14].

According to modern science, Anaemia is a condition in which the number of red blood cells or their oxygen-carrying capacity is insufficient to meet physiologic needs, which vary by age, sex, altitude, smoking, and pregnancy status^[15]. During pregnancy plasma volume expands resulting in haemoglobin dilution^[16] and due to foetal demand, anaemia is the commonest haematological disorder in pregnancy.

According to ICMR (Indian council of medical research), severity of anaemia for pregnant women is graded as mild anaemia corresponds to a level of haemoglobin concentration of 10.0-10.9gm/dl, moderate anaemia corresponds to a level of 7.0-9.9gm/dl, severe Anaemia corresponds to level of 4.0 - 6.9gm/dl while very severe Anaemia corresponds to level less than 4.0gm/ dl^[17].

Dhatri Louha contains *Dhatri (Emblica officinalis)* as its primary ingredient, which is one of

the richest sources of ascorbic acid. Ascorbic acid plays a crucial role in converting ferric iron to ferrous iron, aiding in its absorption by the body. *Dhatri* also enhances the quality of *Rasa Dhatu* and acts as a *Pittashamak*. *Lauha Bhasma*, an iron supplement, possesses *Deepana, Balya Rasayana* and *Rakta vardhaka*, promoting proper metabolism and nourishment of the *Dhatu*. *Yashtimadhu (Glycyrrhiza glabra)* contributes to *Raktaprasadana, Balya Varnya*, and *Shonitasthapana* functions.

Draksha Ghrita pacifies *Pitta* and *Vata*, supports *Rasa dhatu*, and helps maintain proper *Dhatu parinama karma*. Additionally, *Draksha Ghrita* possesses several beneficial properties, including *Pittashamaka, Hridayabalaprada Raktaprasadana Mutrala Jeevaniya Balya Brimhana Pushtiprada Medhya* and *Shothahara*.

Thus, by the *Karmas* of both drugs mentioned in the classics, they may act on the *Dushita Pitta* and effectively restore *Pitta* to its normal state, curing anemia. These drugs are also effective for use during pregnancy, potentially preventing uneventful situations.

CONCLUSION

This study has demonstrated that the combined effect of both drugs leads to *Agni* enhancement, improved iron absorption, and an increase in Hb%, RBC counts, PCV, MCH, MCHC, MCV, serum iron, and serum ferritin, along with a positive impact on the cardinal features of *Garbhini Pandu*.

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