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ORIGINAL RESEARCH ARTICLE

EFFECT OF DADIMADI GHRITA IN GARBHINI PANDU (ANAEMIA IN PREGNANCY)

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Abstract:

Background: Every woman has the innate desire to experience the joys of motherhood. She is centre of the 'supraja-nirmiti' (creation of healthy progeny). Woman has the unmatched role in creation, preservation, nutrition of foetus. Ayurveda has aim to produce 'supraja' (healthy progeny) and not just 'praja' (progeny). The aim of any parent is to bear and nurture a healthy, capable child who can face the pressures of our increasingly complex lifestyles. Anaemia either directly or indirectly contributes to about 20 % of maternal deaths in the third world countries.

Aims and Objectives: To study the efficacy of dadimadi ghrita for treating garbhini pandu (anaemia in pregnancy)

Methods and materials: Total 35 subjects suffering from anaemia in pregnancy were selected. Dadimadi ghrita with dosage of 10 ml was administered orally, at morning empty stomach with a cup of warm water for 30 days. This was open labelled randomized uncontrolled clinical trial.

Results: Clinical observations in general symptoms of garbhini pandu (anaemia in pregnancy) have revealed that percentage of relief, out of 35 subjects, 16 subjects have up to 51-75 % relief followed by 8 subjects up to 76-100 % and then 11 subjects up to 26-50 %. About Hb %, there was difference of 1 gm% in 15(42.86%), up to 1.5 gm% in 10(28.57%), up to 0.5 gm% in 5(14.28%), more than 2 gm% in 3(8.57%).

Conclusion: This study has revealed that dadimadi ghrita has good effect on anaemia in pregnancy. As well this drug has illustrated good effect on agni (digestive power) and nourishment of pregnant woman without any side effects to foetus and pregnant woman.

Key Words: Dadimadi ghrita, Garbhini pandu, anaemia in pregnancy

Key Message: Oral administration of dadimadi ghrita is effective and safe to cure garbhini pandu.

Introduction:

Anaemia either directly or indirectly contributes to about 20 % of maternal deaths in the third world countries.¹ Anaemia in pregnancy is seen proportionally more than other complications in pregnancy due to foetus within developing countries like India. As the foetus rely on mother for nutrition, according to Ayurveda foetus is feed by mother through rasa dhatu. Anaemia as a complication due to

foetus is a disease of rasavahastrotasa (system related with rasa tissue), for that this disease is very important. In pregnancy, rasa dhatu has more responsibilities, i.e. three times than the normal person. It does the nourishment of three factors, viz. foetus, breasts and pregnant woman.² Due to more stress on rasa dhatu during pregnancy, there are more chances of formation of garbhini pandu (anaemia in pregnancy). If it is not treated properly it will lead to serious complications such as dhatu

kshaya (diminution of tissues) and dhatu shaithilya (fatigue in body tissues). The abnormality of rasavaha strotas (system related with rasa tissue) will affect the generation and nutrition of remaining six dhatus (blood, muscle etc. tissues), due to this saratva of dhatus (best quality of tissues) will be affected. It will lead pregnant woman in to serious stage. It will affect her general condition, labour phase as well postpartum phase. Garbhini pandu (anaemia in pregnancy) will lead to intra-natal complications such as prolong labour stage, postpartum haemorrhage and death. In postnatal phase, anaemia in pregnancy will affect the formation of breast milk, as it is upadhatu (sub-tissue) of rasa dhatu and rasa dhatu is already affected. In postnatal phase, woman has already low immunity. Diminution vitiation of rasa dhatu present in antenatal phase will lead to serious diseases and she may suffer from chronic diseases. Hence garbhini pandu (anaemia in pregnancy) should be treated in time. The diseases which occur during pregnancy due to foetus are termed as 'garbhopadrava'. If the woman is totally healthy then and then disease which occurs after conception is described as 'garbhopadrava'. If the female is already not healthy and if in such unhealthy condition if pregnancy occurs then diseases will become more complicated and illustrates disastrous effect on foetus and woman carrying pregnancy. While treating diseases in pregnancy; one thing should be kept in mind that the woman is having special condition. The diseases which are already present before conception are described as garbhini vyadhi and not garbhopadrava. Garbhaopadrava term is described by Harita, Charaka, Sushruta and Vagbhata. Regarding some diseases classics have described foetus or pregnancy as a causative factor, e. g. chardi (vomiting), shotha (swelling), ardita (facial palsy), arsha (haemorrhoids). Harita has described eight garbhopadravas, viz. shosha (emaciation), hrillasa (nausea), chardi (vomiting), shophya (swelling), jvara (fever), aruchi (tastelessness), atisara (diarrhoea) and vivaranatva (changes in colour of skin, nails etc.).³ Among these hrillasa

(nausea), chhardi (vomiting) and aruchi (tastelessness) are described as diseases of annavahastrotasa (digestive system); while shophya (swelling), atisara (diarrhoea), jvara (fever), vivaranatva (pandu/ anaemia) and shosha (loss of dhatus) are described as diseases of rasavaha and raktavahastrotasa (circulatory system). Harita has added nutravibandha (urine obstruction) as ninth upadrava. Vivaranatva (changes in colour of skin, nails etc.) is not clearly describe in classics of Ayurveda, however in panduroga (anaemia), the main symptom is vivaranatva. Pandu (anaemia) is regularly noticed in pregnancy; as a result vivaranatva can be taken as garbhini pandu (anaemia in pregnancy). Panduroga (anaemia) is the disease characterized by 'pandutva'. Pandutva is morbid pallor, yellowish white discoloration. Garbhini pandu (anaemia in pregnancy) occurs commonly in 2nd trimester of pregnancy, but in few cases it is seen in 1st trimester. The disease in which there is discoloration or faintness of skin, nails and eyes is called as pandu vyadhi (anaemia). Sushruta has explained that while doing siravyadha (bloodletting), if blood loss is more then it will cause pandu (anaemia).⁴ Females also suffer from blood loss due to per month menstrual bleeding, during pregnancy, during labour stage and after delivery. Hence actual blood loss will lead her to anaemia due to raktakshaya (loss of blood). These causative factors can be summarized as follows -

1. During menstrual bleeding - More amount menstruation and menorrhagia
2. During pregnancy -Recurrent abortions / medical termination of pregnancy, anti-partum haemorrhage and placenta praevia
3. During labour stage -Postpartum haemorrhage and retained placenta
4. After delivery - Breast feeding for long duration

Samprapti (pathogenesis): According to Charaka, there is pitta dosha dominance in this disease.⁵ During pregnancy, there is pitta dominance in 4th, 5th and 6th months. While discussing the monthly development of foetus; there is growth in uterus, muscle tissue and

rakta (blood) occurs in 5th month, this growth continues till 6th month of pregnancy. Therefore pregnant woman faces loss of strength and skin glow in 6th month and symptoms of loss of mainly rakta (blood) and mamsa (muscle tissue) can be observed. By reviewing these quotations, pathogenesis of anaemia due to pregnancy can be stated under following points -

1. Physiological dominance of pitta dosha in 2nd trimester of pregnancy, increase in dravabhava (formation of abnormal liquidity) within rasa dhatu (rasa tissue), diminution of rasa dhatu due to monthly development of foetus and indulging in non prescribed diet and behaviour
2. Pitta vitiation
3. Rasa dhatu vitiation
4. Manifestation of pandu (anaemia due to pregnancy)

Anaemia due to pregnancy manifests in rasavahastrotasa but shows disastrous effect on rasa and raktadhatu as well as whole body. Rasavahastrotasa get pressurised due to development of foetus. So there is obstruction in rasavaha strotas and generation of rasa dhatu does not take place properly and pregnant woman shows symptoms of pandu (anaemia).⁶Snehana (oleation) and virechana (purgation therapy) are advised as a general line of treatment. There are limitations of treatment in antenatal phase, consequently virechana is not recommended in pregnancy. It is difficult to treat according to dominance of doshas in antenatal phase. Charaka has recommended dadimadi ghrita in anaemia as well he has explained that it helps in normal delivery, good for heart and cures infertility.⁷By reviewing previous research

work by other scholars of Ayurveda, it is noticed that efficacy of dadimadi ghrita is not yet evaluated. Hence I have selected to study the efficacy of dadimadi ghrita for treating anaemia in pregnancy.

Charaka has described that this recipe cures heart diseases, pandu (anaemia), haemorrhoids, splenomegaly, asthma, cough, diseases originated from vitiation of vata and kapha. It increases digestive power, diseases of vata vitiation; as well it is recommended for post natal care and infertility by Charaka.⁸

Aims and objectives: To study the efficacy of dadimadi ghrita for treating anaemia in pregnancy

Materials and methods:

Study design: Open labelled randomized uncontrolled clinical trial.

Selection of patients: Subjects suffering from anaemia in pregnancy were selected, irrespective of cast, religion, socioeconomic strata.

Study Population: Pune city

Sampling: Simple random sampling technique using lottery method.

Sample size: 35

Study setting:The study was carried out at Dharmartha Ashtang Ayurved Hospital, 868, Sadashiv Peth, Pune – 411 030, from date 1stNovember 2001 to 31stMarch 2003.

Ethical considerations: Informed consent obtained from all subjects. The approval has been taken from Institutional ethics committee (letter no. 01/ 2001).

Dadimadi ghrita:

Ingredients of this recipe has described as follows in classics of Ayurveda⁹-

Table no.1: Ingredients of Dadimadi Ghrita

Sr. No.	Ingredient	Latin name	Parts used	Properties
1	Dadima	<i>Punica granatum</i> Linn.	Fruit	Hridya (nice taste), raktavardhaka (haematinic)
2	Dhanyaka	<i>Coriandrum sativum</i> Linn.	Seeds	Dipaka (appetizer), pachaka (carminative)
3	Chitraka	<i>Plumbago zeylanica</i>	Root	Agnimandyahara (cures weak

				digestion), dipana(appetizer)
4	Shunthi	<i>Zingiber Officinalis</i> <i>Roscoe</i>	Root	Amapachaka (digests ama)
5	Pippali	<i>Piper longum Linn.</i>	Fruit	Raktavardhaka (haematinic)
6	Ghrita	Cow ghee		

Method of preparation¹⁰:

1. Roughly crushed - dhanyaka, chitraka, shunthi, pippali – each 12.5 grams was soaked in little quantity of water for 8 hours
2. Then 800 ml of water is added to above mixture and boiled on low flame till it remained 1/4th of total quantity, i.e. 200ml- thus kvatha (decoction) of four ingredients has made as its not available fresh
3. About 50 ml dadima fruit svarasa (juice) was prepared as it is available fresh
4. Plain cow ghee about 250 grams was taken in a pot, added with above decoction and juice and boiled on low flame (madhyamapaka) till it remained 250 grams of medicated ghee only

Inclusion criteria:

I. Subjects suffering from following group of symptoms were included for study -

1. Nakha-netra-tvak – pandutva (Faintness in colour of nails, eyes and skin)
2. Pindikodveshatana (Pain in calf muscles)
3. Hritspanda (Increased heart rate)
4. Akshikutashotha (Swelling around eyes)
5. Klama (Fatigue)

II. Subjects having haemoglobin in between 6 gm % to 11 gm %

Exclusion criteria:

A. The patients suffering from following conditions were excluded from study –

1. Liver cirrhosis
2. Oedema
3. Worms
4. Bleeding haemorrhoids
5. Tuberculosis

6. Blood cancer

B. Anaemia in pregnancy with other complications

C. Patients from 3rd trimester of pregnancy

D. High risk pregnancies were rejected -

1. Primigravida with age more than 35 years
2. Patient with heart disease, diabetes mellitus and hypertension
3. Pregnancy induced hypertension
4. Patient having bad obstetric history, e.g. recurrent abortion, intrauterine growth retardation

Withdrawal Criteria:

Subjects meeting any of the following criteria were to be withdrawn from the study -

1. Earnest request of the subject assigning a reason for the same
2. Serious adverse events where continuation of study possess serious risk to the subject
3. Subject consumes any other medicines used for the treatment of anaemia in pregnancy

Sample size: 35 completed cases

Safety: Monitoring of adverse events and clinical examination.

Interventions:

Drug: Dadimadi ghrita

Dose: 10 ml

Time: Morning empty stomach before 8.00 A.M.

Anupana: a cup of warm water

Duration: 30 days

Follow up: follow up visit after 30 days

Assessment criteria:

A. Group of symptoms - Nakha-netra-tvak – pandutva (faintness in colour of nails, eyes

and skin), pindikodveshatana (pain in calf muscles), hritspanda (increased heart rate), akshikutashotha (swelling around eyes) and klama (fatigue) were assessed before and after study treatment with following gradations –

Severity index of anaemia in pregnancy –

0 - normal (all symptoms disappear) - grade 0

+ -low grade (from 5 symptoms 3 disappear) - grade 1

++ -moderate (2symptoms disappear but not affecting foetal growth) - grade 2

+++ - severe (all 5 present having hazardous effects to mother) - grade 3

B. After giving treatment weekly record was kept under following points -

1. Above said symptoms
2. Pulse, blood pressure and weight
3. Foetal growth
4. Vyapad (complications)

C. Laboratory investigations - Haemoglobin percentage and urine routine examinations were made before and after study treatment.

Data analysis: Statistical evaluation of the data obtained was done using means, standard deviation, percentage, mean difference Data analysis was done by using SPSS 17.0 statistical software. We have used t test to find out the significance before study treatment and after study treatment.

Observations:

I. General observations:

Table no.2: Division according to parity

Para	No. of subjects	%
First	17	48.57
Second	9	25.71
Third	8	22.86
Fourth	1	2.86

Out of 35 subjects, maximum number of subjects was primi-para, followed by second para, third para and fourth para. They were 17(48.57%), 9(25.71%), 8(22.86%) and 1(2.86%) respectively.

Table no.3: Symptoms of pandu

Symptom of pandu	No. of subjects	%
Pandutva (faintness in colour of nails, eyes and skin)	35	100
Hritspanda (increased heart rate)	30	85.71
Akshikutashotha (swelling around eyes)	25	71.43
Ayasenshvasa (dyspnoea on exertion)	34	97.14
Klama (fatigue)	34	97.14
Pindikodveshatana (pain in calf muscles)	34	97.14

Out of 35 subjects, maximum number of subjects was found in having nakha-netra-tvak – pandutva (faintness in colour of nails, eyes and skin), followed by hritspanda (increased heart rate), akshikutashotha (swelling around eyes), klama (fatigue) and pindikodveshatana (pain in calf muscles). They were 35(100%), 30(85.71%), 25(71.43%), 34(97.14%) respectively.

II. Clinical observations –

Table no.4: Effect on pulse rate

Reduction in pulse rate/ minute	No. of subjects	%
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No change	2	5.72
1 to 4	12	34.28
5 to 8	13	37.14
9 to 12	6	17.14
13 to 16	2	5.72
> 16	00	00
Total	35	

According to effect on nadi (pulse rate) was observed as – maximum effect, i.e. 5 to 8 per minute in 13 (37.14%) subjects, followed by 1 to 4 per minute in 12 (34.28%) subjects and 9 to 12 per minute in 6 (17.14%) subjects.

Table No. 5 -Reduction in respiration rate

Reduction in RR per minute	No. of subjects	%
1 to 2	16	45.71
3 to 4	19	54.29
5 to 6	00	00
7 to 8	00	00
Total	35	

In concern with this study, out of 35 subjects, maximum number of subjects was found in having reduction in respiration rate by 3-4 that followed by 1 to 2. They were 19(54.29%), 16(45.71%) respectively.

Table No. 6: Effect on increase in haemoglobin percentage

Difference in Hb %	No. of subjects	%
No change	1	2.86
Up to 0.5 gm%	5	14.28
Up to 1 gm%	15	42.86
Up to 1.5 gm%	10	28.57
Up to 2 gm%	3	8.57
> 2 gm%	1	2.86
Total	35	

Regarding this study, effect on increase in haemoglobin (up to 1 gm %) was recorded in maximum number of subjects, i.e. 15. It was followed by group up to 1.5 gm% in 10 subjects, up to 0.5 gm% in 5 subjects.

Table No. 7: Effect on haemoglobin percentage

Decrease or increase in Hb %	No. of subjects	%
Decrease	2	5.81
Increase	32	91.43
No change	1	2.86

Out of total study population, maximum number of subjects (32) was found of increase in Hb %, i.e. 91.43 %. Decrease in Hb % was also recorded in few subjects (02), i.e. 5.81 % and no change was recorded in 1 subject, i.e. 2.86%

Table No. 8: Effect on severity index of anaemia in pregnancy

Severity	Before treatment		After treatment	
	No. of subjects	%	No. of subjects	%
Grade 0	00	00	8	22.86
Grade 1	1	2.86	22	62.86
Grade 2	10	28.86	5	14.28
Grade 3	24	68.58	00	00

Out of 35 subjects, maximum number of subjects was found in grade 3, 2 and 1 (before treatment). They were 24(68.88%), 10(28.86%) and 1(2.86%) respectively. It means that anaemia in pregnancy was moderately severe, as all symptoms were present in most of subjects. After treatment, the severity index of anaemia in pregnancy was - Grade '0' normal (all symptoms

disappear), grade '1' low grade (from 5 symptoms 3 disappear), and grade 2 (moderate, i. e. only 2 symptoms disappears but not affecting foetal growth), grade 3 (all five symptoms are present having hazardous effect on mother and foetus). They were 8(22.86%), 22(62.86%), 5(14.28%) respectively.

Table No. 9: Total effect on anaemia in pregnancy

% of relief	No. of subjects	%
0 – 25 %	00	00
26 – 50 %	11	31.43
51 – 75 %	16	45.71
76 – 100 %	8	22.86

Total effect of treatment on anaemia in pregnancy - According to percentage of relief, out of 35 subjects, 16 subjects have up to 51-75% relief followed by 8 subjects up to 76-100 % and then 11 subjects up to 26-50 %.

Discussion:

Woman has got the divine status in the world. "God could not be everywhere, so he created mothers." This famous Jewish proverb clearly signifies the importance of motherhood. Every woman has the innate desire to experience the joys of motherhood. She is centre of the 'supraja-nirmiti' (creation of healthy progeny).¹¹ Women has the unmatched role in creation, preservation, nutrition of foetus. Ayurveda has aim to produce 'supraja' (healthy progeny) and not just 'praja' (progeny). The aim of any parent is to bear and nurture a healthy, capable child who can face the pressures of our increasingly complex lifestyles. For this creation of healthy progeny,

woman has to go from series of changes like sagarbhaavastha (antenatal phase), prasavaavastha (labour phase) and suitikaavastha (post natal phase). In antenatal phase, her condition is very delicate,¹² i.e. she is on borderline of prakriti (health) and vikriti (disease). Hence her regimen in antenatal phase should be aimed to health of both mother and foetus. Ayurveda has advised garbhini paricharya (antenatal regimen) for comfortable and healthy pregnancy. Thus she can easily be accustomed to anatomical and physiological changes during antenatal phase. Women is playing major role in creation of human being. She carries the foetus in her womb for nine month. Pregnancy is a natural and happy stage in her life. Healthy motherhood and creation of healthy progeny one of the two aims of pregnancy. Real satisfaction and happiness of motherhood will depend on creation of healthy progeny; hence if antenatal phase and labour phase are normal

then only creation of healthy progeny is possible. Ayurveda classics have stated the antenatal care methods. It states the rules about diet and behaviour during pregnancy. Improper or unbalanced diet is responsible for various congenital abnormalities in the developing foetus. A balanced diet is one that balances the three doshas and nourishes the seven dhatus (body tissues). The purpose of antenatal care is not to treat the disease but to prevent it. Scholars have stated the garbhini paricharya (antenatal regimen) because in antenatal phase the female require more and more nutrition. Hence classics of Ayurveda have recommended satvik food, which means pure, easily digested foods that nourish the dhatus (tissues) of mother and the unborn child. These include foods such as milk, rice, wheat, and ghee (clarified butter), fresh vegetables, fruits and grains. Satvik foods do not cause constipation or indigestion, and they create a more settled state of mind. These foods help the mother enjoy ideal health and vitality, and also help with the growth of the baby. Pregnancy demands special care and dietary regimen. If a woman doesn't follow garbhini-paricharya (antenatal regimen), that mother may face some complication or disorders. It may affect the baby also. These complications are termed as 'garbhopadrava' (complications in pregnancy due to foetus). Kashyapa, Harita, and Sharangdhara have explained about the complications in pregnancy due to foetus. These are¹³ -

1. Shosha (loss of dhatus)
2. Hrilasa (nausea)
3. Chhardi (vomiting)
4. Shopha (swelling)
5. Jvara (fever)
6. Aruchi (tastelessness)
7. Atisara (diarrhoea)
8. Vivaranatva (changes in colour of skin, nails etc.)

All these are important and to be taken proper care but the last one is special one. It is explained as discolouration of skin, nails, eyes etc. Though it is a symptom and not disease but still it has its own importance. It is the main symptom in pandu (anaemia) and kamala

(jaundice). Charaka has stated that kamala (jaundice) originates from pandu (anaemia).¹⁴ Hence the above symptom indicates anaemia. In practice pregnant woman faces anaemia more than jaundice; therefore the above symptom 'vivarnatva' can be taken as anaemia in pregnancy.

Modern treatment for anaemia in pregnancy:¹⁵

1. Diet – A realistic balanced diet, which is rich in proteins, iron and vitamins and which is easily assimilable is prescribed.
2. To improve the appetite and facilitate digestion, preparation containing acid pepsin may be given thrice daily after meals.
3. Effective therapy to cure the disease contributing to the cause of anaemia.

Relative data analysis has shown that the 'p' value in all the symptoms such as pandutva (faintness in colour of nails, eyes and skin), hritspanda (increased heart rate), akshikutashotha (swelling around eyes), ayasenshvasa (dyspnoea on exertion), klama (fatigue), pindikodveshatana (pain in calf muscles) as well as Hb % was highly significant. From the data of the objective features, the 'p' values were almost highly significant ($p < 0.001$) in all the parameters. Hence, it can be concluded that the dadimadi ghrita is more effective in anaemia in pregnancy. The results are encouraging and support the classical claim that dadimadi ghrita is effective in reducing the symptoms of anaemia in pregnancy and can be used widely in the treatment.

Probable mode of action of dadimadi ghrita regarding anaemia in pregnancy:

As Dadima is hridya (pleasant), the recipe prepared from it became palatable by pregnant women. Shunthi is amapachaka (digests ama) as well dhanyaka possesses dipaka (appetizer) and pachaka (carminative) properties along with chitraka - agnimandiyahara (cures weak digestion) which helps to break dosha-dushya complex. Most of the herbs from this recipe acts on digestive and circulatory systems. In

anaemia in pregnancy, there is mainly pitta vitiation. Dadima (*Punicagranatum Linn.*) possesses laghu and snigdha properties; madhura, kashaya and amlatastes; madhuravipaka and anushnaveerya. It does pittashamana by madhura (sweet) and kashaya (astringent) tastes.¹⁶ Dhanyaka (*Coriandrumsativum Linn.*) is laghu and snigdha properties; kashaya, tikta and madhura rasa; madhuravipaka and ushnaveerya. Hence it is tridoshahara, ushna = vatashamana; kashaya, tikta, madhura = pittashamana, tikta, katu, ushna = kaphashamana. Being antidyptic, digestive, astringent, liver stimulant and anthelmintic – its useful in emesis, anorexia and indigestion. Bhavaprakasha has described it as it alleviates pitta.¹⁷ Chitraka (*Plumbago zeylanica*) holds tikshna, laghu, ruksha – properties; katu, tikta – tastes' katuvipaka and ushnaveerya. Because of that it alleviates kapha-vata, but increases pitta, but here it is processed with cow ghee, hence its pittavardhaka property is reduced. It enhances the circulation of gastric mucus membrane, thus helps in digestion and absorption.¹⁸ Due to chitraka, increase in dravabhava (formation of abnormal liquidity) within rasa dhatu (rasa tissue) is reduced which helps to break dosha-dushya complex in this disease. Shunthi (*Zingiber Officinalis Roscoe*) contains laghu and snigdha – properties; katu – taste; madhuravipaka and ushnaveerya. Bhavaprakasha has described its use in pandu (anaemia). It helps in alleviating vata-kapha and pitta. It is appetizer and digestive, hence acts as amapachaka (digests

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ama). It purifies blood, stimulates heart and circulatory system.¹⁹ Pippali (*Piper longum Linn.*) acquires laghu, snigdha and tikshna – properties, katu – taste, madhura – vipaka and anushna-sheetaveerya. Hence it balances kapha-vata. Circulatory system is a main action field of pippali. Being katu (pungent) taste and madhuravipaka, it acts on raktadhatu, enhances raktadhatvagni and raktadhatu. It is a good rejuvenator of rakta dhatu.²⁰ Therefore it is used in this recipe which is useful for anaemia in pregnancy. Ghrita is rasayana (rejuvenator) and balya (boosts strength), hence it balances loss of mamsa (muscle tissue) which generally occurs in 6th month of pregnancy. Thus as a whole this recipe breaks dosha-dushya complex in anaemia in pregnancy and helps to restore health which is ultimately useful for proper nourishment of foetus as well as mother.

Conclusion:

This study has revealed that dadimadi ghrita has good effect on anaemia in pregnancy which was helpful to increase Hb % as well it was helpful in reducing pandutva (faintness in colour of nails, eyes and skin), pindikodveshatana (pain in calf muscles), hritspanda (increased heart rate), akshikutashotha (swelling around eyes) and klama (fatigue). As well this drug has illustrated good effect on agni (digestive power) and nourishment of pregnant woman without any side effects to foetus and pregnant woman.

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