

PERSPECTIVE OF HIGH RISK PREGNANCY IN AYURVEDA

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ABSTRACT

High risk pregnancies are the pregnancy where the mother or fetus has higher chance of health problem or pre term delivery than a typical delivery. The prevalence of high-risk pregnancies among Indian women was 49.4%, with 33% of women having a single high-risk, and 16.4% having multiple high-risk pregnancies.^[1] Changing lifestyle, food habits, late marriages, late age pregnancies are some of the contributing factors for high-risk pregnancy. In ayurveda they mentioned some condition which leads to or which we can relate to high-risk pregnancy but they did not mention directly as high risk pregnancy. Asatmya ahara vihara, not following the various regimens described by ayurveda at various stage leads to high risk pregnancy.

KEYWORDS: high risk pregnancy, garbhini paricharya.**INTRODUCTION**

According to modern science these are some conditions which lead to high risk pregnancy.

1. Pre-existing health condition such as diabetes mellitus, high blood pressure (hypertension), HIV, Lupus etc.
2. Complication from previous pregnancy - such as premature labor, or child with genetic problem or birth defect
3. Lifestyle factor- smoking, alcohol, anxiety, stress etc.
4. Age: Pregnancy risks tend to be higher for pregnant people who are younger than 20 or who are older than 35.

5. Lifestyle choices: A variety of lifestyle choices can put a pregnancy at risk. Examples include.

- Drinking alcohol.
- Smoking cigarettes, vaping or using other tobacco products.
- Using illegal drugs.

6. Health problems: Some medical conditions in a pregnant person can raise pregnancy risks, including.

- High blood pressure.
- Obesity.
- Diabetes.
- Epilepsy.
- Thyroid disease.
- Heart or blood disorders.
- Poorly controlled asthma.
- Infections.

7. Pregnancy complications: Some health problems that develop during pregnancy can cause high risk includes.

- Gestational diabetes
- Multiple Gestation
- Gestational hypertension, eclampsia, pre-eclampsia
- placental condition – like placenta previa, placental abruption
- Very low fetal growth. Usually, overall fetal growth or a fetal abdomen size that's less than the 10th percentile for gestational age is cause for concern. This condition is called fetal growth restriction. (IUGR)
- Rh sensitization - This happens when a pregnant person's blood group is Rh negative and the fetus's blood group is Rh positive.
- Too much or too less amniotic fluid (poly/oligohydramnios)

8. Pregnancy history

- Medical problems that happened during a previous pregnancy may raise the risk of having the same problems again.
- Examples include.
- Conditions during pregnancy related to high blood pressure, such as preeclampsia.
- Giving birth early. This is called preterm delivery.
- Having a baby born with a genetic condition.
- Having a miscarriage or stillbirth.

There are some factors make pregnancy high risk

1. Autoimmune disorder 6. PCOS
2. Kidney disease 7. diabetes mellitus
3. Mental health disorder 8. high blood pressure
4. Blood clotting disorder 9. Fibroid
5. Obesity 10. HIV/AIDS

High risk pregnancies lead to complication like.

- Preeclampsia-spectrum disorders, including gestational hypertension, preeclampsia and eclampsia.
- Preterm delivery.
- Cesarean delivery.
- Excessive bleeding during labor and delivery, or after birth (postpartum hemorrhage).
- Low birth weight.
- Birth defects (problems with the development of a baby's organs such as the heart or brain, also called congenital conditions)
- Miscarriage.
- Stillbirth.

This condition needs more attention, careful observations. In this condition prevention is better than cure.

High risk pregnancy in ayurvedic view-

1. For high risk pregnancy AGE is important factor mentioned in ayurveda.

- Appropriate age for marriage and conception - according to susruta 25yr for male and 16yr for female^[2] because all dhatuposhana completed by this time and couple is physically and psychologically matured and both are considered as viryavanta. According to acharya sushruta, Impregnation in young and aged women leads to Kukshistha garbhavyapad - IUGR, IUD etc.
- na chiram jeevet – having low life span
- Durbalendriya^[3] – weak sense and motor organ

And in ati vridha Avastha there is minimal or no chance of conception^[4]

As per this we can divide like

Risk of early garbhadhana- Risk of delayed garbhadhana
Pre-eclampsia - PIH (high BP)

- Preterm labour - gestational diabetes
- Anaemia - placental abruption
- Baby with anaemia -placenta previa
- Underweight - difficult labour

2. Rajswala Paricharya and high risk pregnancy: In ayurveda rajswala paricharya is given by different acharyas.it is regimen which have to follow during menstruation. According to acharya susurta, maintain the celibacy, avoid Anjana, ashru, hasya, abhyanaga, nakhakartana etc.^[5]

Effect of intercourse observed in rajkala^[6,7]

Day of menstruation	Effect on pregnancy
First	No pregnancy/intra uterine death/death immediately after delivery
Second	Abortion / intra uterine death /death immediately after birth/ within few days after delivery
Third	Short lived/defective body parts
Fourth	Normal healthy, mature baby

By following this rajswala paricharya we can avoid some abnormalities in childlike^[8,9]

Paricharya (to avoid)	result
diwaswapna	Swapna sheelata (excessive sleep)
anjana	Andhatva (blindness)
rodana	Vikrita dushti (abnormality of vision)
snanulepana	Dukhsheelata (depression)
tailaabhyanga	Kushta (leprosy and skin disorder)
Nakha apkartana	Kunakhi (deformity of nails)
pradhavana	Chanchal (fickle mindness)
atikathana	Pralap (over talkative)
atishabdasravana	Badhira (deafness)
avalekhana	Khalitya (baldness)

3. Beeja vikruti leading to garbhanga vikrutii^[10]: According to bhel Samhita.

Jadam- mentally retard

Muktawa – Aphasiya

Mental retardation, aphasia indicates cerebral insufficiencies which are the features of many genetic disorders like down's syndrome, turner's syndrome etc.

Kubja – kypho scoliosis

Kuni – abnormality in hands as in a chondrogenesis with severely short limbs and osteogenesis imperfect.

Pangu – abnormality in lower limbs as in a chondrogenesis with severely short limbs and osteogenesis imperfect.

Kubjata, kunita and panguta indicates Musculo skeletal system which are the features of Town broke syndrome.

- **Heenang and adhikanga** – can be corelated either with visible congenital abnormalities like polydactyl or

absence of visible parts or can be considered with chromosomal abnormalities e.g. aneuploidy or polyploidy. Adhikanga – polyploidy- more sets of chromosomes Klinefelter's syndrome (47XXY)

Trisomy – having additional number of chromosomes e.g. Down's syndrome

Heenang – monosomy – having deficient number of chromosomes e.g. Turner's syndrome (45XO)

4. Multiple Gestation - According to Acharya Susruta^[11] (Su.sha.2/37), Susruta explained about the incidence of twin pregnancy as – vitiated *vata* divides the *bija* (fertilized ovum) into two fractions, followed by descent of two *jeeva* into those fractions guided by virtuous and non-virtuous deed of parent. According to Acharya Charaka^[12] (Ch.sha.2/14),

While explaining the aetiology of multiple pregnancy quotes – excessively vitiated *vata* situated in uterus divides the *shukrartava* (zygote) into several fractions. No. of fetus depends on no. of division it has undergone. According to Harita^[13] (Ha.Sa.VI.1/38)

Harita explains specific combinations of *dosha* and *dhatu* responsible for organogenesis. If couple with *bhrant chittata* (eccentric minded) observes intercourse, this instability of mind influences the *doshas* thus resulting in birth of twins which are source of amusement to spectators. Here we can see the role of *vayu* and *manas* plays important role in multiple gestation.

5. Garbhavikruti due to *beejabhaga upataptata*^[14]: The word *beeja* in *garbha sambhav samgri* refers to male and female gametes. Ayurveda states that if specific part of gamete (*beeja bhagavayava*) is vitiated, it leads to vitiation of that organ being generated from that part.

MATERIAL AND METHOD

Various Samhita like Charaka Samhita, Susruta Samhita, Harita Samhita, Bhel Samhita etc. also various articles.

DISCUSSION

- To avoid genetic disorders and autoimmune disease the concept like *beejashudhi* is given in Ayurveda.

Pre conceptional care (*purva samyog vidhi*) also described in Ayurveda^[15]

- snehana
- swedana
- Purification (*vamana*, *virechana*, *vasti*)
- For male = *madhur aushada* Sanskrita *ghrita*, milk (*Madhura ahara* promotes the production of *shukra*)
- For female = food with *taila* and *masha* (*pittala Dravya* promotes the production of *artava*)

Utility of *purva samyog vidhi*^[16]

By proper purification and *samskaras* unvitiated *yonis*, *garbhashaya*, *manas* and *beeja* are ensured leading to healthy progeny by perfect unification of *beeja* as in case of white cloth permits perfect colouring. With this *beejashudhi* i.e. *shodhana* we can avoid autoimmune

disease, genetic disorder as well as with help of *shodhana* as it plays role in *manasa* and controls *vata* we can avoid multiple gestation.

- After conception to avoid further complication our Acharya described *masanumasika garbhini paricharya*. Importance of *garbhini paricharya* is described in *Charaka Samhita* as, With *sukra*, *asrika*, *atma asaya*, and *kala sampata* if we use *hita ahara* *vihara* i.e. following dietetic regimen the pregnant women having normal development of fetus, remains healthy and delivers a child possessing good good health energy, strength etc.^[17]

1st trimester- During first trimester of pregnancy most of women experience nausea and vomiting, so they cannot take proper diet. Use of *sheeta Madhura* liquid diet and milk prevents dehydration and supply required nourishment. *Madhura* group are anabolic and help in maintenance of pregnancy. During first trimester *vata* is responsible for cell division during embryogenesis and imbalance in *vata dosha* may disturb as normal function and process of cell division. During first trimester milk, *ghrita*, *Madhura gana*^[18] are suggested which are well known for *vata shamaka* property. So, this all are helpful in avoiding miscarriage and maintaining pregnancy.

2nd trimester- In second trimester, muscular tissue of fetus grows sufficiently requiring more protein which is supplied from animal sources such as meat, milk, cheese, butter etc. In second trimester, muscular tissue of fetus grows sufficiently through cellular hyperplasia and cellular hypertrophy. Therefore, it requires more protein which can be supplied from animal sources such as meat, milk, cheese, butter as furnish amino acids in optimal combinations. Milk and dairy products have long been considered nearly ideal sources of nutrients, especially protein and calcium for pregnant women provides nourishment and stability to the fetus. Meat helps in maintenance of pregnancy, provides nourishment to fetus and suppresses alleviated *Vata* of pregnant women and helps in muscular growth of the fetus. Cooked *shasthi rice* advised in *Garbhini Paricharya* is rich in carbohydrate and provides energy to the body. By the end of second trimester most women suffer from oedema of feet and other complications of water retention. So *ghrita* medicated with *gokshura*^[19] is used which is a good diuretic will prevent retention of water as well as its complications (*PIH*, *ECLAMPSIA*).

3rd trimester- *Ghrita* medicated with *prithakparnyadi group*^[20] of drugs are diuretic, anabolic, relieve emaciation and suppress *pitta* and *kapha*. Their regular use in seventh month might help in maintaining health of mother and fetus. *Yavagu*^[21] consumption in eighth month which is *balya* and *brimhana* provides nourishment to mother and fetus. Most women suffer from constipation in late pregnancy, *asthapana vasti*^[22] administered during eighth month which is best for *vata anulomana* relieves constipation. Besides this may also

affect the autonomous nervous system governing myometrium and help in regulating their function during labour.

Tampoon of oil^[23] in vagina provides lubrication of cervix, vaginal canal and perineum thus helps in normal labour. This may destroy pathogenic bacteria of vaginal canal and prevent puerperal sepsis. In ayurveda, there is

description about Garbhopaghatacara bhava i.e. (FACTORS LIKELY TO HARM THE FETUS).

1. According to Charak^[24]: Tikshna ausadh, vyavaya, vyayama, use of Tikshna ushna guru padarth, madakara ahara, madya sevana, ekrasa sevana
2. Susruta^[25]: Vyavaya, Vyayama, Atitarpan, Atikarsan, Divaswapna, Ratrijagaran, Shoka, Yanaavarohana, Bhaya, Utkatusana, Sonitamoksan, Vegadharan, Snehan, sushka, paryushita, kuthita, klinna anna etc.

Diet and mode of life by mother	Effect on children
Abnormal position of sitting and sleeping	I.U.D. premature delivery, abortion
Trauma, compression, falls, riding in jerky vehicle, listening unpleasant word	Premature delivery, abortion
Sleeping in supine position with trenched extremities.	Cord around the neck
Sleeping uncovered in open place (Vibruta Sayini) or night walking (naktcharini)	Insane or Unmatta
Kali Kalaha Shila	apsmara
Vyavaya Shila	Wife dominated, lazy
Shoka Nitya	Bhita (fearful), Alpagni, Alpayusha
Swapna Nitya	Nidralu, Alpagni, Abudha (fool)

3. Vagbhata^[26]: Tikshna Ausadh, Vyavaya, Vyayama, ruksha anna, vishtambhi bhojana

4. Kashyapa^[27]: Should not look at declining moon, setting sun, and both the rahu, she should not remain for long in acutely erect or flexed posture and carry heavy weight for long, avoid tremoring, excessive laughing and trauma, use of cold water and garlic.

5. harita^[28]: Dwidala anna sevana, vidahi vastu, amla padartha, mruttika, surunkanda, ushna dugdha.

6. Yoga Ratnakar: Kshara sevana, dushita vishama anna sevana

Ahara as garbhopaghatacara bhava -

Diet and mode of life by mother	Effect on children
Mada Nitya	Pipasa, Alpa Smruti, Anavasthita Chitta
Matsya Mamsa Nitya	Stabdhaksha (fixed eye dropping of eyelids)
Godha mamsa priyatva	Ashmari, shankarashmari, shanairmeha (urinary problem)
Varaha mamsa priyatva	Raktaksha, ati parusha roma
Madhura Nitya	Prameha, Muka, Atisthula
Amla nitya	Rakta Pitta, Twak and Akshi Roga
Lavana nitya	Vali, Palita, Khalitya
Katu nitya	Durbala, Alpa Shoka, Anapathya
Tikta nitya	Shosha, Alpa Bala, Alpagni
Kashaya nitya	Shyava, Anaha, Udavarta

Vihara as garbhopaghatacara bhava

Charaka	sushruta	Astang sangraha
<ul style="list-style-type: none"> • uccha bhashana • Avarodha • Vega dharana • Kupa-prapata • Kupa avlokana • Atimatra – samkshobha, vyayama, vyavaya & daruna chesta • Snehnadi kriya • Going outside alone & to lonely place • Visiting cremation places, haunted trees & entering into shades of tree • Rakta vastra dharana 	<ul style="list-style-type: none"> • Maithuna • Vyayama • Ati tarpana • Ati Karshana • Diwa swapna • Ratri jagarana • Kukkutasana • Raktamokshana • Vegadharana • Malina, vikrita, heena gatrtta parshana • Yana • avorahana 	<ul style="list-style-type: none"> • Yana • Indriya pratikula bhava • Ajeerna • Agni • Krodha • Shoka • Bhaya • Trasa • Upavasa • Vishama, kathina asana • Kupa pratapa

Astang Hridaya	kashyapa	Other acharya
<ul style="list-style-type: none"> • Apriya avlokana • Apriya shravana • Abhynga • Udvartana • Bhara vahana • Guru pravara • Udvega • Uttana shayana • Shodhana • Vasti before eighth month 	<ul style="list-style-type: none"> • Looking at declining moon, setting sun • Being exposed to solar or lunar eclipse • Excitement • Excessive laughing • Staying for longer periods in erect or flexed posture • Viewing the filled pots ,garlands, pot filled with ghrita or dadhi • Wearing tight garments 	<ul style="list-style-type: none"> • Harita & bhva misra • Sitting or sleeping on very soft bed • Going to river bank, temple or garden • Yogratnakara • Swedana • vama

• Garbhoghatahara vihar and their effect on fetus
Pratottana shayana - taking rest in lateral recumbent position promotes uteroplacental blood flow prolonged sleep in other position may reduce the uteroplacental blood flow and thereby lead to fetal hypoxia.

kukkutasana & vishamasana - prolonged squatting & abnormal posture may influence placental and uterine blood flow. Increase intrauterine pressure causes miscarriage or premature labor.

kupa avlokana - during pregnancy the center for gravity will be altered because of the gravid uterus & this might be reason for restriction

vyavaya - Sex during pregnancy carries threat for abortion or premature delivery as orgasm causes uterine contraction.

But they do not cause cervical dilatation and hence usually not initiates labor It may increases intrauterine pressure causing miscarriage or premature labor.

yana – travel as a whole should be abstained by pregnant lady.

Rahu darshana - exposure to both lunar and solar eclipse may make pregnant women to be exposed to harmful radiation leading to fetal defects and growth problems.

Trauma - trauma can occur in case of kupa prapata, yana, vikshobhakara charya etc.

Trauma may result in condition like - traumatic placental abruption leading to placental separation, fetal maternal hemorrhage

Vegadharana - Leads to hypothalamic irritability leading to hormonal aberrations.

Ratri jagarana & ati diwa swapna - Leads to alteration of circadian rhythm causing hypothalamic dysfunction and hormonal aberrations.

CONCLUSION

So, we can avoid high risk pregnancy with Marriage and conception in time

- To avoid autoimmune disease, multiple gestation, genetic disease- pre conceptional care (beeja shudhi) (shodhana).

- To avoid complications in pregnancy – follow masanumasika paricharya.

- To avoid complication in garbha - avoid garbhoghatahara bhava.

So, Nearby all condition causing high risk pregnancies are also described in ayurveda, that all condition can be handle by avoiding taking asatmya ahara vihar before

conception & during pregnancy as well as high risk situation for conception & during pregnancy can be treated with beejshudhi i.e. samshodhana (panchakarma), following rajaswala paricharya, garbhadhana vidhi, garbhini paricharya.

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