



Review Article

AWARENESS OF *GARBHOPAGHATAKARA BHAVAS*: A STEP TOWARDS PREVENTION OF TERATOLOGIC ABNORMALITIES DURING PREGNANCY

Chhavi Saini^{1*}, Madhavi Goswami², Anjali Verma³

*1PG Scholar, ²Former Registrar UAU), PG Dept. of Rachana Sharir, ³Assistant Professor, Dept. of Prasuti Avum Stree Rog, Rishikul Campus, Haridwar, IPGT&RA, India.

Article info

Article History:

Received: 29-12-2024

Accepted: 25-01-2025

Published: 07-02-2025

KEYWORDS:

Garbhopaghatakar Bhava, Teratological abnormalities, Congenital abnormalities.

ABSTRACT

Ayurveda is a holistic science which incorporates not only the treatment but also centred for root cause of developmental abnormalities from birth. In present science the presence of teratological abnormalities is a burning issue which inner rates is around 3–5% of live births each year. *Garbhopaghatakara Bhavas* disrupts the foetus's normal growth and development, includes changes in the mother's food, habits, behaviours, and exposures throughout the perinatal period. Among pregnancy's most devastating outcomes are deformed living foetuses. Anything known to result in foetal abnormalities that a person consumes or is exposed to during pregnancy is referred to as a teratogen. Teratogens include things like chemicals, medications, drugs, some illnesses, and poisonous substances. Additionally, teratogens can raise the chance of stillbirth, premature labour, or miscarriage. Occasionally, the birthing parents have unmanaged health issues. This is an attempt to examine the *Garbhopaghatakara Bhavas* and teratogenicity during pregnancy of the mother and children. These *Garbhopaghatakara bhavas* are described under three modes which is dietetics mode of life i.e., *Ati Ushana* (excessive use of hot), *Ati Madhura* (excessive use of sweet), *Atyalap Bhojana* (less quantity of food), *Madayapana* (using wine daily) etc., physical mode of life i.e., *Utakata aasana* (squatting or sitting in abnormal position), *Vyavaaya* (coitus), *Vayayaam* (improper and excessive exercise), *Vegavidharana* (suppression of natural urges) and mental or psychological mode of life i.e., *Bhaya* (psychologically constantly fear), *Shauka* (always distressed or grieved), *Karodha* (anger), *Apriyavlokana sharavanaad* (listening to unpleasant words).

INTRODUCTION

Under the heading of *Garbhopaghatakara Bhavas*, all the great *Acharyas* of Ayurveda have explained certain things which should not be done during pregnancy. In today's fast moving life, all womens unknowingly follow certain things which are told as contraindications during pregnancy. Due to negligence or ignorance of these *Garbhopaghatakara bhavas*, leading to miscarriage, abortions and other obstetrical complications, so it is necessary to analyse these factors.

Anything that a person is exposed to or consumes during pregnancy that is known to cause abnormalities in the foetus is called a teratogen. Examples of teratogens include drugs, medications, chemicals, certain infections, and toxic substances. Additionally, teratogens can increase the risk of miscarriage, preterm labour, or stillbirth, as well as, in some cases, uncontrolled health issues in the birthing parents. One well-known teratogen that can have detrimental effects on the foetus after exposure at any point during pregnancy is alcohol; depending on when exposure occurs, chickenpox is a teratogen that may cause neonatal varicella or congenital varicella syndrome.

At this time, there is not enough evidence to determine the exact relationship between BPA exposure and foetal development, but most health care providers recommend limited exposure to BPA during pregnancy. Caffeine is not considered to be a teratogen,

Access this article online	
Quick Response Code	https://doi.org/10.47070/ijapr.v13i1.3547
	Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

but it can have negative effects on the foetus if consumed in large quantities. There are so many other potential teratogens, both known and unknown, and if one is uncertain about exposure to them during pregnancy, it is recommended to seek medical counseling.

AIM AND OBJECTIVES

The present study highlights the *Garbhopaghatakara Bhavas* as the risk factor for teratologic abnormalities and awareness regarding these can play a vital role to prevent developmental anomalies during pregnancy.

MATERIALS

This study compile references of different classical books of Ayurveda from Vedic period and various other classical Ayurvedic literature, commentaries related to *Garbhopaghatakara Bhavas* on pregnancy as well as the present modern study and literature also critically analysed.

This study will also discuss the *Garbhopaghatakara Bhavas* as the risk factor for teratologic abnormalities during pregnancy through modern literature.

METHODS

Garbhopaghatakara Bhavas

This reference is found in *Charaka Samhita* and *Shushruta Samhita* and that consist of dietetics mode of life, physical mode of life and mental mode of life as just below. Many great authorities of Ayurveda mentioned *Garbhopaghatakara* factors that are responsible for abnormalities of the foetus in terms of appearance, complexion.

Charaka says that the pregnant woman should avoid use of pungent things, (excessive) exercise and coitus, Following factors are harmful for the foetus such as-use of excessive heavy, hot and pungent substances; in order to protect herself from the effects of God, demons, and their followers, she should refrain from engaging in harsh or violent activities (those that are far beyond her own capabilities) and others as directed by elders. She should also refrain from wearing red garments, driving a vehicle on an uneven road, using excessive amounts of meat, and giving up items that are against *Indriyas* and other harmful items.^{[1][2]}

Sushruta has mentioned that from the day of conception the women should totally give up coitus, exercise, excessive satiation (*Santarpana*), excessive emaciation (*Apatarpana*), sleeping in day and awakening in night, grief, riding on vehicle, fear, squatting or the posture of sitting on the hams with the soles of feet touching the ground, and avoid untimely use of *Snehana*, bloodletting and suppression of natural urges. The coitus troubles the foetus. She should not touch dirty or disfigured persons

possessing less body parts, should give up foul smelling, awful looking substances and exciting stories, should not eat dried up, stale, putrified or wet food. She should avoid outing, visit of lonely place, *Chaitya*, cremation ground or shade of a tree, acts likely to promote anger and disgrace, talking in high pitch etc all the things likely to harm the foetus.^[3]

Vagbhaṭa I has corroborated the views of *Charaka*, however, alike *Sushruta* he has also given the list of contraindications as-coitus, exercise, emaciation, trauma, conveyance i.e., carriage or animals causing excessive jerks, night awakening, day sleeping, suppression of natural urges, indigestion, prolonged stay in hot sun or near fire, anger, grief, fear, terror, fasting, squatting or other abnormal hard postures, falling in pits or wells, looking or hearing disliked things etc. The parents especially woman desirous of having offspring of high quality should make themselves superior. In first month massage of oil and unguents and up to fifth month use of articles likely to aggravate *Doshas* should be avoided.^[4,5,6]

Vagbhaṭa II has also contraindicated besides excessive coitus and exercise others as carrying of heavy weight, covering herself with heavy sheet etc, untimely sleep, squatting or abnormal sitting, grief, anger, fear, excitement, suppression of desires and urges, fasting, excessive walking, use of pungent, hot, heavy and *Vistambhi* (hard to digest) food, use of red garments, peeping in a pit or well, use of wine or meat, sleeping in supine position etc. Bloodletting, purifying measures (*Shodhana* during whole pregnancy period) and enemas upto eighth month should not be used.^[7]

Kashyap has given entirely different type of contraindications i.e., she should not look at declining moon, setting sun and both the *Rahus* (*Rahu* and *Ketu*). Knowing solar or lunar eclipse, she should go in the middle of house and perform religious rites and offer oblation to free the planets from the clutches of *Grahas*. She should not have spite with guests, offer aims to beggars instead of turning them out, perform oblation of *Ghruta* in burning fire for pacification, should not oppose full ewer, *Ghruta*, garland and pot filled with *Ghruta* or curd, should not tie anything from thread or thin rope and loosen her all the bonds or wear very loose garments. She should not remain for long in acutely erect or flexed posture and carry heavy weight for long, excessive laughing and trauma etc, use of cold water and garlic is also contraindicated.^[8]

RESULT AND DISCUSSION

As per Ayurveda and modern literature the *Garbhopaghatakara Bhavas* and the teratogenic abnormalities are discussed above. Along with that the causation of congenital abnormalities due to teratogen exposure are discussed. The knowledge of these *Garbhopaghatakara Bhavas* are necessary to know for pregnant women and prevent exposure from them.

There are various references available in the classics of Ayurveda which gives an idea that the *Acharyas* had depth knowledge about the embryogenesis, teratogens and the resultant congenital malformations, maternal and foetal complications. In this way, above article emphasized mainly on importance of antenatal phase and parturition phase according to Ayurvedic literature and modern literature and suggests proper care for pregnant women for healthy child birth.

Garbhaang vikruti (Teratologic Abnormalities)

The utilization of *Garbhopaghatakara Bhavas* during antenatal period is considered as risk factor for developing teratogen abnormality is growing foetus they are references below.

Causes of Teratologic Abnormalities

Due to the abnormalities of *Beeja* (ovum and sperms), *Atma-karma* (deeds of previous life), *Ashaya* (uterus), *Kala* (time factor or abnormality of *Ritukala*) and dietetics along with mode of life of mother, the vitiated *Doshas* produce abnormalities of foetus, affecting its appearance, complexion and *Indriyas*. As a tree fallen in stream of water of a river gets disfigured due to effect of (being knocked by) woods, stones and current of flowing water, similarly the aggravated *Doshas* situated in *Kuksi* (uterus) disfigure the foetus.^[9]

Charaka has explained further that teratologic abnormalities depend upon the condition of *Beeja*, not on the physical status of couple, or in other words what-so-ever part of *Beeja* is defective, the body part developing from that portion of *Beeja* will be abnormal. Any organic abnormality cannot occur without abnormality of corresponding portion of *Beeja*.^[9] Accordingly, only the child born to a *Kusthi* (leprosy) man will have *Kustha* if the part of *Beeja* that forms skin is deficient; if that part is normal, the child will be healthy. Because *Atma* is the source of all *Indriyas*, their existence or nonexistence is determined by fate. It is not usually the case that a blind or idiot father would have a blind or idiot child; nevertheless, if the blind man's *Beeja* has the aberrant element that damages eye sight, the child will be blind but not otherwise.^[9] Similar hypothesis has also been expounded later, that due to abnormalities in dietetics etc. of woman, if her entire *Beeja* becomes abnormal then she will not conceive, however, if a small portion is defective then the born child will have the abnormality of corresponding body part of maternal origin. Psychology of the woman also effects the foetus i.e. at the time of impregnation, to what-so-ever type of animal the woman thinks, the child will have similarity with that.

Sushruta says that the foetus having shape of snake, scorpion or field-pumpkin etc are the results of sins or bad deeds. Due to vitiation of *Vayu* and insult or non-fulfilment of *Dauhrida* (desires of pregnant mother) the foetus may become humpbacked, maim or

crooked armed, lame, dumb and nasal voiced. Dilating the same he writes further that this non-fulfilment of *Dauhrida* results in birth of crooked-legged, idiot, dwarf, dishaped-eyed or absent-eyed child, objects/desires of what-so-ever *Indriya* are neglected/ not provided, the foetus develops abnormality of the same. Thus in short atheism of parents, bad deeds of previous life (of the foetus) and aggravation of *Vayu* are three causes of teratologic abnormalities. Development of body parts is a natural phenomena, the qualities and normalcy in body parts are the results of righteousness and the abnormalities of unrighteousness. Bearing-down efforts made by the woman in absence of labour pains are also said to produce deaf, dumb, hump-backed child or the one with abnormally located body-parts.^[10]

Vagbhaṭa I has enumerated the causes as impregnation of a woman of less than sixteen years of age, conception during first three days of menstrual flow, abnormality in *Shukra* and *Aartava* and also delivery of hump-backed child due to bearing-down efforts made in absence of labour pains. He has also described the abnormality of a part of *Beeja* etc.^[11]

Vagbhaṭa I and II say that the cause of teratologic abnormalities is vitiation of *Vayu* and also due to *Vayu* located in *Shukra*. *Indu* opines that other doshas also cause foetal abnormalities, while *Arunadatta* says that upward movement of *Doshas* is a causative factor.^[11,12]

Teratogenicity in modern aspect

Anything that can result in birth defects or abnormalities in a developing embryo or foetus after exposure is known as a teratogen. Some pharmaceuticals, recreational substances, tobacco products, chemicals, alcohol, some diseases, and in some situations, medical conditions such uncontrolled diabetes in pregnant women, are teratogens. During pregnancy, teratogen exposure can happen by ingesting or environmental exposure.

A neural tube defect, such as spina bifida or anencephaly, may result from exposure to a teratogen during the first 3.5 to 4.5 weeks of gestation. Teratogens can start to affect the developing embryo as early as 10 to 14 days after conception. The developing organ systems exhibit increased sensitivity to teratogens during certain stages of embryonic development.

Non-teratogenic agents are those substances that have been found to not result in birth abnormalities. Examples of non-teratogenic substances that are frequently confused with teratogens include acetaminophen, spermicides, and prenatal vitamins.

Pregnancy and Teratogens

Any medication or medicine that a person is exposed to during pregnancy and that result in a

deformity or abnormality in the foetus is known as a teratogen.

Drugs, chemicals, and even diseases are known as teratogens, because they can result in aberrant foetal development. Just a small number of substances have been shown to have teratogenic effects out of billions of possible teratogens. A baby born with a birth defect may be the consequence of these impacts. Teratogen exposure accounts for 4 to 5 percent of birth abnormalities.

Most substances that humans encounter are not known teratogens. If you're worried about being exposed to a certain drug, chemical, or virus while pregnant, speak with your doctor. Around 10 to 14 days after conception, researchers think a teratogen may have an impact on a growing baby.

Congenital Anomalies relation with Garbhang Vikruti due to Garbhopaghatakara Bhavas

The main factor influencing the embryo's development is genetics. However, environmental factors might also have a significant impact.

It therefore follows that congenital anomalies may occur either as a result of genetic or environmental defect, or by a combination of both.

The foetus having shape of snake, scorpion or field-pumpkin etc are the results of sins or bad deeds. Due to vitiation of *Vayu* and insult or non-fulfilment of *Dauhrida* (desires of pregnant mother) the foetus may become humpbacked, maim or crooked armed, lame, dumb and nasal voiced. Dilating the same he writes further that this non-fulfilment of *Dauhrida* results in birth of crooked-legged, idiot, dwarf, dishaped-eyed or absent-eyed child, objects desires of what-so-ever *Indriya* are neglected not provided, the foetus develops abnormality of the same.^[13]

Genetic causes for teratogenicity and relation with Garbhopaghatakara Bhavas

Teratologic abnormalities depend upon the condition of *Beeja*, not on the physical status of couple, or in other words what-so-ever part of *Beeja* is defective, the body part developing from that portion of *Beeja* will be abnormal. Any organic abnormality cannot occur without abnormality of corresponding portion of *Beeja*.^[9,13]

Defects in one or more genes or chromosomes can result in anomalies. Some genes are absent or have extraneous genes attached to them, which cause chromosomal abnormalities. Consequently, the inability of cells to produce the appropriate proteins (particularly enzymes) at the appropriate time is the ultimate cause of genetic abnormalities. The genetic flaw might either directly or indirectly affect the organ in creating the abnormality. A genetic abnormality that causes agenesis of the testis, for instance, may have an indirect effect on the development of external genitalia

by disrupting the hormone production that is essential to their growth. Similar to this, a blood artery malformation may disrupt an organ's blood flow and hence impair its development.

Environmental causes as Teratogens in relation to Garbhopaghatakara Bhavas

Infections- Congenital deformities can result from syphilis, chickenpox, HIV, measles, and toxoplasmosis. Congenital defects and an illness called German measles are known to be correlated. When the mother suffers from this disease in the early months of pregnancy, the offspring often the cataract (opaque lens of eye), anomalies of the heart, or deafness. As per mentions that as instructed by elder persons, she should not wear red garments for protection from the effect of God, demons and their followers.^[13]

Malnutrition- It has been demonstrated that abnormalities can result from deficiencies in vitamins, minerals (such as calcium or phosphorus), specific trace elements, and particular amino acids. It is believed that iodine deficiency causes endemic cretinism. However, the extent to which nutritional deficiencies are responsible for anomalies in human is controversial.^[13]

Antigenic Reactions- Hemolytic disease of the newborn.^[13] It is also called erythroblastosis fetalis. These are defects in the blood where the baby's red blood cell break down at a faster rate. This occurs when the blood types of mother and foetus are not the same. For example, it occurs when the mother is Rh negative and the foetus is Rh positive (as father is Rh positive) in her first pregnancy. In this condition, the Rh negative mother is sensitized by Rh positive antigens from the foetus and the mother's immune system makes anti-Rh-antibodies against the invaded antigens. When the woman becomes pregnant second time with again an Rh positive foetus her anti-Rh antibodies cross the placenta and damage foetal red blood cells that get lysed fast leading to anemia and its consequences.

Drugs and chemicals- Phenothiazine, lithium, meprobamate, chlordiazepoxide, diazepam, and aminopterin (a folic acid antagonist); diphenylhydantoin and trimethadione (used to treat epilepsy); and thalidomide (a folic acid antagonist). Alcohol in foetal blood produces the foetal alcohol syndrome^[13].

Hormones- External genital abnormalities can result from the administration of synthetic oestrogens. In later life, foetuses exposed to diethylstilbestrol, a synthetic oestrogen, during intrauterine life exhibit a higher incidence of cervix and vaginal cancer. Congenital deformity is another effect of maternal diabetes^[13].

The genetic flaw might either directly or indirectly impact the organ, resulting in an

abnormality. For instance, by disrupting the synthesis of hormones required for their development, a genetic disorder causing agenesis of the testis may have an indirect effect on the developing external genitalia. Similarly, an anomaly of a blood vessels may interfere with the blood supply of an organ and hence adversely affect its development.

Known Teratogens

You should also avoid known teratogens. These include- Angiotensin converting enzyme (ACE) inhibitors, such as zestril and prinivil, alcohol, cocaine, Diethylstilbestrol (DES), etretinate (tegison), isotretinoin (accutane), lead, lithium (eskalith), mercury, methimazole (tapazole), penicillamine (depen, cuprimine), prostaglandins, radioactive iodine, tetracycline (sumycin), tobacco, trimethadione (tridione).

Some of these agents are easy to avoid. Others may be necessary for a medical condition and cannot be avoided. For example, if you have epilepsy and need to take phenytoin to control your seizures while pregnant, you may be better off taking the medication than risking uncontrolled seizures during pregnancy. If you need treatment with any of the medications that are known teratogens while pregnant, ask your doctor to refer you to a geneticist. Geneticists are experts in the effects of teratogens on foetuses and can help you determine your actual risk given a particular exposure. You may also receive a targeted ultrasound evaluation to see if the foetus has been compromised.

Alcohol: The growing foetus's central nervous system may be impacted by alcohol. Throughout pregnancy, alcohol consumption can cause serious health issues or

birth defects in the unborn child because the central nervous system is vulnerable to teratogens. It is advised that alcohol be avoided during the course of pregnancy.

Chickenpox- A foetus may be teratogenically affected by chickenpox. Congenital varicella syndrome is an uncommon but dangerous birth condition that can occur if a pregnant woman has chickenpox during the first 20 weeks of her pregnancy. Congenital varicella syndrome puts a foetus at risk for gastrointestinal issues, skin scarring, and abnormalities of the eyes, legs, arms, and brain.

BPA- BPA, or bisphenol A, may potentially have teratogenic effects on a developing foetus. BPA is a chemical found mainly in plastic, and is often used in containers that store beverages and food. Heat exposure can cause BPA to seep into food and be consumed. It is yet unknown if BPA causes teratogenic consequences in foetuses.

Caffeine- It is not believed that caffeine is a teratogen. However, it is a diuretic and stimulant, which might raise a person's heart rate and blood pressure. Caffeine can pass the placenta and affect the developing foetus's heart rate and blood pressure in a similar way if it is eaten during pregnancy. Limiting daily caffeine intake to 200mg is the current recommended for pregnant women.

Ayurveda categorised the risk factor for teratologic abnormalities among the three modes i.e., dietetics mode, physical mode and mental or psychological factors. All the three- dietetics, physical and her psychology play a crucial role for normal development of foetus.

Dietetics Mode of Life

S.No.	Parameters	Ayurveda Garbhopaghata-kara Bhava	Risk factors presents in modern	Evidence
1.	Excessive use of sweet	Ati Madhura	Preaclamp-sia and preterm birth	There is a large amount of evidence showing that sugar intake directly associated with preterm birth.
2.	Excessive use of hot	Ati Ushana	Increased body temperature	Leads to mental retardation, cleft lip, cleft palate, foetal growth retardation. ^[14]
4.	Using wine daily	Madyapaana	Foetal alcohol syndrome	Alcohol in foetal blood produce the foetal alcohol syndrome. ^[15]
5.	Less quantity of food	Atyalap bhojana	Poor nutrition	Increased risk of preterm birth, also lead to congenital disabilities. ^[16]
6.	Often use of meat and fish	Ati maans, Matasay sevan	many negative developmental consequences	The fact fish contain mercury, exposed to mercury in the womb is associated with many negative developmental consequences. ^[17]

Physical Mode of Life

S.No.	Parameters	Ayurveda's Garbhopaghatakara bhavas	Risk factor present in modern	Evidence
1.	Squatting or sitting in abnormal position	<i>Utakata aasana</i>	Discomfort and harm the foetus	Wrong sitting posture not only causes discomfort but might also harm the baby ^[18] .
2.	Improper and excessive exercise	<i>Vyayama</i>	Hypoxia, hyperthermia, abnormal heart rate	Some potential risks to the fetus resulting from maternal exercise including hypoxia, hyperthermia, and abnormal heart rate changes. ^[19]
3.	Coitus	<i>Vyavaaya</i>	Preterm birth	Pregnant women who had SI during pregnancy had a significantly higher cumulative preterm birth rate than those who did not. ^[20]
4.	Excessive satiation	<i>Ati santarpana</i>	Macrosomia, gestational diabetes	High gestational weight gain elevates infant risk for macrosomia and early onset obesity. ^[21]
5.	Riding on vehicle	<i>Yaana rohana</i>	Traumatic injury	Road traffic collisions are the leading cause of traumatic injury during pregnancy. ^[22]
6.	Suppression of natural urges	<i>Vegavidharana</i>	Abortion	Faulty diet, behaviour (excessive physical exercise, jerking, suppression of natural urges, etc.), are responsible for abortion. ^[23]

Mental Mode of Life

S.No.	Parameters	Ayurveda's Garbhopaghatakara Bhavas	Risk factor present in modern	Evidence
1.	Psychologically constantly fear	<i>Bhaya</i>	Low birth weight child	Psychosocial stresses during pregnancy and perinatally can affect unfavourably the woman's mental state, perhaps resulting in a low birth weight child. ^[24]
2.	Always distressed or grieved	<i>Shauka</i>	Mental health problem	Greater risk for subsequent mental health problems for themselves. ^[25]
3.	Anger	<i>Karodh</i>	Delay growth	High-anger women were noted to be more active and to experience growth delays. ^[26]
4.	Listening to unpleasant word	<i>Apriyavlokana shravanaada</i>	Low birth weight	Increased risk of being born at a low birth weight. ^[27]

CONCLUSION

The available scientific study shows the cause of teratologic abnormalities is hidden inside of dietetics, physical and psychological factors of pregnant women. The diet, the way of life and psychological factors is responsible for abnormality in foetus so the prevention of the teratologies can be potentially reduces through *Garbhopaghatakara Bhavas*. Following the different Ayurvedic principles,

such as adhering to the *Garbhini Paricharya* diet plan and avoiding foods that aggravate the triads (*Garbhopaghatakara Bhavas* and *Tridosha*) when pregnancy, can aid women in preventing a range of diseases and birth abnormalities. In addition to increasing pregnant women's knowledge and comprehension of teratogens, regular and appropriate medical advice would increase their likelihood of

avoiding exposure during pregnancy. The risk of congenital impairments is significantly decreased for pregnant mothers who learn to recognise teratogens and prevent them. Society must become considerably more mindful of teratogens as more mothers become knowledgeable about them. No matter where you are in your pregnancy, exposure to teratogens is bad. However, the first eight weeks of pregnancy are when the risk is significantly higher. This is because many organs and systems are developing, making the foetus more sensitive to the harmful effects of teratogens. Studies show that teratogens can impact the foetus as early as two weeks from conception (when the sperm fertilizes an egg).

It can be scary to think about bad outcomes and birth defects while you are pregnant. The good news is that exposure to teratogens only accounts for a very small percentage of birth defects. Most of the time, people are able to avoid the things that can negatively impact foetal development. Lack of attention, education, supervision, and prevention through diet, way of life, and mental health are linked to congenital malformations or diseases.

REFERENCES

1. Charak Samhita text with English translation, edited by Prof. P.V Sharma vol.1, Chaukhamba Orientalia, Varanasi, Sharir Sthaan chapter 4 page no. 432
2. Charak Samhita text with English translation, edited by Prof. P.V Sharma vol.1, Chaukhamba Orientalia, Varanasi, Sutra Sthaan, chapter 25 page no. 168-169
3. Sushruta, illustrated Sushruta Samhita by K.R Srikantha Murthy, Reprint edition, Chaukhamba Orientalia Varanasi, vol. 1 Sharir Sthaan chapter 3, page no. 38
4. Ashtang Sangrah by Kaviraj Atridev Gupta, Chaukhamba Orientalia, Varanasi, Sutra Sthaan 13/3
5. Ashtang Sangrah by Kaviraj Atridev Gupta, Chaukhamba Orientalia, Varanasi, Sharir Sthaan Chapter-2 60-62
6. Ashtang Sangrah by Kaviraj Atridev Gupta, Chaukhamba Orientalia, Varanasi, Sharir Sthaan chapter-3/3
7. Ashtang Haridya by Kaviraj Atridev Gupta, Chaukhamba Orientalia, Varanasi, Sharir Sthaan 1 page no. 236
8. D C Dutta, Textbook of Obstetrics by, Edited by Hiralal Konar chapter 5, published by New Central Book agencies, 6th Edition.
9. Charak Samhita text with English translation, edited by Prof. P.V Sharma vol.1, Chaukhamba Orientalia, Varanasi, Sharir Sthaan Chapter-2 page no. 415.
10. Sushruta, illustrated Sushruta Samhita English translation by K.R Srikantha Murthy, Reprint edition, Chaukhamba Orientalia Varanasi, vol. 1 Sharir Sthaan chapter 2 page no. 31
11. Ashtang Sangrah by Kaviraj Atridev Gupta, Chaukhamba Orientalia, Varanasi, Sharir Sthaan 2\47-53
12. Ashtang haridya by Kaviraj Atridev Gupta, Chaukhamba Orientalia, Varanasi, Sharir Sthaan chapter 1 page no. 230
13. Human embryology Inderbir Singh, edited by V Shubhdra Devi, 13th edition chapter 21 page no. 342, 343
14. Samuels L, Nakstad B, Roos N, Bonell A, Chersich M, Havenith G, Luchters S, Day LT, Hirst JE, Singh T, Elliott-Sale K, Hetem R, Part C, Sawry S, Le Roux J, Kovats S. Physiological mechanisms of the impact of heat during pregnancy and the clinical implications: review of the evidence from an expert group meeting. *Int J Biometeorol.* 2022 Aug; 66(8):1505-1513. doi: 10.1007/s00484-022-02301-6. Epub 2022 May 12. PMID: 35554684; PMCID: PMC9300488.
15. Being overweight in pregnancy and after birth <https://www.rcog.org.uk/for-the-public/browse-our-patient-information/being-overweight-in-pregnancy-and-after-birth/>
16. Complications & Symptoms of Not Eating Enough During Pregnancy: First Trimester & On <https://zayacare.com/blog/not-eating-enough-during-pregnancy/>
17. Ibid
18. Know the Correct Sitting Postures during Pregnancy: 1st Trimester, 2nd Trimester and 3rd Trimester <https://sci-hospital.com/blog/know-the-correct-sitting-postures-during-1st-trimester-2nd-trimester-and-3rd-trimester-of-pregnancy>
19. Yo, Y.; Kawasaki, K.; Moriuchi, K.; Shiro, R.; Shimaoka, M.; Matsumura, N. The Effect of Sexual Intercourse during Pregnancy on Preterm Birth: Prospective Single-Center Cohort Study in Japan. *Healthcare* 2023, 11, 1657. <https://doi.org/10.3390/healthcare11111657>
20. Ibid
21. Pregnant women in traffic collisions at heightened risk of birth complications <https://www.bmj.com/company/newsroom/pregnant-women-in-road-traffic-collisions-at-heightened-risk-of-birth-complications/>
22. Anuradha Roy, Binay Sen, Monisha VM. Management of threatened abortion through Ayurvedic intervention: A case report. *Journal of Ayurveda and Integrative Medicine.* 14 (2023) 100783

23. Ruth P. Zager, Psychological Aspects of High-Risk Pregnancy. Zager, R, Glob. libr. women's med., 2009; DOI 10.3843/GLOWM.10155
24. Tesfaye G, Madoro D, Tsegay L. Maternal psychological distress and associated factors among pregnant women attending antenatal care at public hospitals, Ethiopia. PLoS One. 2023 Jan 19;18(1):e0280470. doi: 10.1371/journal.pone.0280470. PMID: 36656840; PMCID: PMC9851506.
25. Field T, Diego M, Hernandez-Reif M, Salman F, Schanberg S, Kuhn C, Yando R, Bendell D. Prenatal anger effects on the fetus and neonate. J Obstet Gynaecol. 2002 May;22(3):260-6. doi: 10.1080/01443610220130526. PMID: 12521495.
26. Schoch-Ruppen J, Ehlert U, Uggowitz F, Weymerskirch N, La Marca-Ghaemmaghami P. Women's Word Use in Pregnancy: Associations With Maternal Characteristics, Prenatal Stress, and Neonatal Birth Outcome. Front Psychol. 2018 Jul 24;9:1234. doi: 10.3389/fpsyg.2018.01234. PMID: 30087634; PMCID: PMC6066569.
27. Is Loud Noise During Pregnancy Safe for Baby's Hearing? <https://www.thebump.com/a/fetal-hearing-is-loud-noise-safe-during-pregnancy>

Cite this article as:

Chhavi Saini, Madhavi Goswami, Anjali Verma. Awareness of Garbhopaghatakara Bhavas: A Step Towards Prevention of Teratologic Abnormalities During Pregnancy. International Journal of Ayurveda and Pharma Research. 2025;13(1):182-189.

<https://doi.org/10.47070/ijapr.v13i1.3547>

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr. Chhavi Saini

PG Scholar,

Dept. of Rachana sharir,

Rishikul campus, Haridwar

Email: chhavisaini23m@gmail.com

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.

