

Effect of garbhasanskar and yoga on pregnancy

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Introduction: The remarkable effect of these postures in pregnancy show the power of yoga for ensuring a smooth pregnancy. We decided to evaluate the effect of garbhsanskar and yoga on pregnancy outcome. **Aims & Objectives:** We were aimed to study the effect of garbhasanskar & yoga on pregnancy and baby. **Material & Methods:** A thorough history was collected from all the participants. Total 70 females (35 in each) primigravidawith Vertex Presentation only after 3rd month of pregnancy were participating in study of age 20 to 35 years. **Study Group:** Who were willing to attend garbhasanskar program. Patients with history of any other complication during pregnancy, chronic respiratory disease, cardiac disease etc were excluded. CONTROL GROUP consist no history of any major illness and not willing for garbhasanskar programm. The yoga program involve 1 hour session per week followed by 1/2 hours listening to audio cassette of yoga nidra by trained yoga teacher. Patients were asked to practice it daily at their home in the sequence:- Asanas, pranayama, meditation and yoga nidra. A pre-designed questionnaire was distributed in groups after delivery. Also feedback from doctor was taken. Percentage (%) of each group according to each symptoms was calculated. **Result:** Reduction in all pregnancy symptoms and complications was seen in study. Also good baby birth weight and milstone development was seen. **Conclusion:** Garbhasanskar and yoga in primigravida has great potential as an effective therapy to get best mother and baby health.

Keywords: Garbhasanskar, Yoga, Primigravida, Pregnancy

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Introduction

GarbhaSanskar means imbibing good values (Sanskar) in the fetus. Today science has proved that intrauterine baby can not only listen, touch, feel but also can respond by its own way. 60-70% of brain development occurs in intrauterine period. Garbhasanskar are special effort taken to stimulate baby's senses gently so that cortical development is maximum. Various examples from history also showed the impact of garbhsanskar on pregnancy. Story of Abhimanyu, Lord Buddha and Pralhad are well known to us. The parent to be couple must be prepared mentally & physically to welcome the unborn child. Also during pregnancy, Yogasanas are a gentle way to keep females active and supple. Thus yogic practices integrate harmony and perfection of body, mind and spirit [1]. They bring harmony; develop a restful and positive attitude towards life. This comprehensive programme of yogic practice designed for pregnant women will help them to have correct positive flexibility of spine and improve their breathing capacity to manage stress [2, 3]. It helps to build immunity, inner strength and improve control over body and emotions.

Aims & Objectives

We are aimed to study the effect of garbhasanskar & yoga on pregnancy by recording:

1. Pregnancy symptoms
2. Natural comfort during labor: duration of labour
3. Birth outcome - baby weight, perterm/term delivery
4. Mode of delivery - FTND/FTLSCS,
5. Assisted delivery-Forcep/ventouse
6. Any other complication during pregnancy- IUFD, PIH, PPH

Material & Methods

The study was conducted at a Private Nursing Home. Posters were displayed as advertising mode for recruitment of subjects. Informative pamphlets were distributed in ANC outpatient department. All the pregnant females attending the study were equally divided into two groups (experimental & control).

History and Clinical Examination: A thorough history have been collected from all the participants including personal history such as name, age, sex, ethnicity, address, and medical history, obstetric history.

All the subjects underwent an anthropometrical assessment including standing height and weight. The subjects for this study were included based on the following criteria.

Study Group

Inclusion Criteria: In this study we were enrolling 35 female (age=20 to 35 years) prim gravida with Vertex Presentation only after 3rd month of pregnancy and who were willing to attend garbhasanskar program. Females with no previous history of other significant illness were selected.

Exclusion Criteria: Patients with history of any other complication during pregnancy like placenta praevia, low lying placenta, multigravida with bad obstetric history, PIH incompetent os, H/o chronic respiratory disease, H/o cardiac disease etc.

Examination finding suggestive of respiratory or cardiac disease were excluded from the study.

Control Group: Control group consist 35 female (age=20 to 35 years) who are primigravida with Vertex Presentation and no history of any major illness and not willing for garbhasanskar program.

The yoga program involve 1 hour session per week (every Sunday in the morning hours) of yoga followed by 1/2 hours listening to audio cassette of yoga nidra. Patients were asked to practice it daily at their home in the following sequence:-Asanas, pranayama, meditation & yoga nidra. To teach yogasana a teacher with training of Yoga-pravesh course was appointed. Some of the asanas performed were:- [4]

01. Tadagasan
02. Ardhachakrasan
03. Parvatasan
04. Vajrasan
05. Vrukshasan
06. Praayam
07. Omkar-chant
08. Yoganidra [5, 6]

A pre-designed & pre-tested questionnaire were distributed in Study group and control group after delivery. Also feedback from doctor who was conducting delivery is taken.

Questions asked to subjects during study were

1. How do you perceive the pain?
 - a. Mild
 - b. moderate
 - c. severe d. intense
2. How do you perceive the contraction?
 - a. Mild
 - b. moderate
 - c. severe
 - d. intense
3. What was the frequency of contraction?
 - a. Every half hour
 - b. Every 15 minutes
 - c. Every 5 minutes
 - d. Every 1 or 2 minutes
4. What was the duration of contraction?
 - a. For 5 – 10 sec
 - b. For 15 – 20 sec
 - c. For 25 – 30 sec
 - d. For 40 – 45 sec
5. Whether you perceived the pain & contraction along with bearing down (rectal pressure)?
 - a. Yes
 - b. No
6. Whether breathing exercise taught to you in Yoga were beneficial in withstanding the pain?
 - a. Yes
 - b. No

Following things were observed by us

1. Apgar score of new born baby. [7]
2. Instrumental or spontaneous section
3. Vaginal delivery or caesarian section
4. Color of amniotic fluid, clear or meconium s/o presence or absence of fetal distress
5. Birth weight of baby
6. Heart rate of baby by fetal Doppler during labor to note presence of fetal distress.

Statistical Analysis: This is case- control study. The data was entered in the MS Excel spreadsheet.

Appropriate statistical analysis was performed using SPSS. Percentage (%) of each group according to each symptoms was calculated.

Observations & Results

Table-I: Comparison of pregnancy symptoms in study and control groups.

Symptoms	Study group(n=35)Percentage %	Control group(n=35)Percentage %
nausea, morning sickness	45%	55%
Easy fatigability,giddiness	40%	60%
Constipation	20%	40%
p/v bleeding	2%	10%
Mood swings	10%	40%
Preterm labor pain	2%	10%
edema and leg cramps	20%	40%

Table-II: Comparison of different factors in delivery in study and control groups.

Incidence	Study group(n=35)Percentage %	Control group(n=35)Percentage %
Full term normal delivery	91%	70%
Full term lower segment caesariansection	7%	20%
Forcep/ventous delivery	2%	10%
Preterm delivery	NIL	5%
Prolonged labor	NIL	5%
Any other complication		
i) Intrauterine fetal death(IUFD)	NIL	NIL
ii) pregnancy inducedhypertention(PIH)	NIL	10%
iii) post partumhaemorrhage(PPH)	NIL	1%

Table-III: Comparison of different factors in baby after delivery in study and control groups.

Factors	Study group(n=35)	Control group(n=35)
Average birth weight	>2.75KG (95%)	>2.5KG (70%)
Gain in weight of baby	GOOD	GOOD
Achievement of milestone	FAST	GOOD
Lactation	ADEQUATE IN 95%	ADEQUATE IN 70% require Galactogauges

Table-IV: Comparison of different factors in baby intrauterine till fullterm and intrapartum in study and control groups

	(intrauterine)FHSN normal range-135-140/min	(intrapartum)Fetal Bradycardia	(intrapartum) FetalTachycardia
Study group(n=35)	100%	nil	10%
Control group(n=35)	100%	10%	20%

Discussion

Yoga helps in relaxation and softening of deep inner tension and blockages. It helps in mind equilibrium and feeling of energetic. All this due to parasympathetic activity increases and stability of autonomic balance [3].

This will help primigravida to tackle stress throughout pregnancy and during delivery. Mood swings are also controlled due to yoga and garbhasanskar practices. This difference was seen in the experimental group compared to the control group (Table I).

Series of events that place in the genital organs in efforts to expel the viable products of conception out of the womb through the vagina into the outer world is called labour [8]. Increased incidence of normal labour in our study compares to the control group (Table-II)

The labour is said to be prolonged when the combined duration of the first and second stage is more than the arbitrary time limit of 18 hours [8]. Incidence of prolonged labour in our study was nil which was 5% in the control group (Table-II)

During delivery in each group, pain increased and maternal comfort decreased as labor progressed. The experimental group was found to have a shorter duration of the I stage of labor as well as the total time of labor. Also the babies born to mothers of the experimental group were having averages to good birth weight (i.e.) more than 2.75kg. APGAR score is a quantitative method for assessing the infant's respiratory, circulatory and neurological status.

It should be assigned at 1 and 5 minutes of age. Normal healthy baby has APGAR score between 7-9 at 5 minutes [7]. Almost all babies of study group have APGAR score within normal limit. According to records 10% babies have APGAR score <7 in the control group.

Preterm labour is defined as one where the labour starts before 37th completed week (<259 days) counting from the first day of last menstrual period [8].

There was no incidence of preterm delivery or low birth weight deliveries. Mostly all patients delivered vaginally only 7% patients with borderline contracted pelvis needed Caesarian Section. Overall comfort of patient during delivery

was more as regards to pain perception in the experimental group (Table II, III).

There was no incidence of any other factor complications (Table II) like, eclampsia, PIH (development of hypertension to the extent of 140/90mm Hg or more with proteinuria induced by pregnancy after the 20th week in previously normotensive and non-proteinuric patient [8], PPH (Any amount of bleeding from or into the genital tract following birth of baby upto the end of the puerperium which adversely affects the general condition of patient evidenced by rise in pulse rate and falling blood pressure is postpartum haemorrhage) [8], IUFD (ante-partum death occurring beyond 28 weeks is termed as intrauterine death) [8] in the experimental group (Table-II).

As the mother is the first guru of the fetus, mother is para-positive. It helps fetus to learn better in the womb. Garbhasanskar and yoga are directed towards keeping expectant mother happy and making pregnancy a joyful experience. It is a process to achieve physical, mental, spiritual, emotional, social development and perfection for the mother and baby.

Yogic exercise by influencing the autonomic nervous system ensures better food utilization and improved nourishment besides proper relaxation and sleep due to superior voluntary control of person [1].

Garbhasanskar has shown results in baby's development. Babies of mothers who have attended garbhasanskar have had better birth weight and higher emotional quotient. Milestones achieved by baby of the experimental group mother were good and fast (Table III) Also these babies shown improved auditory sense as the auditory sense gets stimulated when the mothers attended garbhasanskar workshops [2].

Yog nidra has different steps like resolve, rotation of consciousness, breath awareness, awareness of sensation, visualization, sankalpsmriti, end of yog nidra. It moulds the behavior of an individual to promote perfect harmony with her environment to relieve from any sufferings. Positive effect on mother's health and baby development [4].

Also pregnancy yoga exercises help in:

1. Relieving edema and leg cramps during last trimester.
2. Influencing the position of the baby

3. Raising the level of energy while also helping in showing the metabolism to restore calm and focus.

4. Helping to reduce nausea, morning sickness and mood swings in combination with pranayam

5. Relieves tension around the cervix and birth canal.

6. Opens the pelvis to make labor easier and quicker.

7. Also in post-natal period. It restores the uterus, abdomen and pelvic floor.

8. Relieves upper back tension.

9. Helps in better Lactation

So during pregnancy all the efforts are directed towards keeping expectant mother happy. Stress, frustration, anger, irritation etc. produce adrenalin which can potentially have some bad effects on the baby in uterus. Due to meditation there is decreased adrenalin output, decrease in arterial lactact concentration and ultimately reduction of anxiety symptoms [1, 2].

Due to meditation, hypothalamus interacts with thalamic nuclei to facilitate specific alpha wave in certain areas of cortex and interacts with RAS to inhibit certain neural centres that act on diffuse thalamus system.

It either directly integrates autonomic and somatic activity or indirectly act on the medullary centers through RAS to produce or influence the changes seen in O₂ consumption, cardiac output, heart rate, respiration rate, blood pressure and skin resistance [1, 2].

Science has proved that intrauterine baby can not only listen, touch, feel but also can respond by its own way since 60% of brain development occurs in intrauterine period.

The observed effects of garbhasanskar and yoga on pregnant females were extremely beneficial both for mother and baby. To summarize regular practice of yoga and garbhsanskar leads to

1. Decrease in duration of labor.
2. Decrease in perception of pain during labor.
3. Incidence of full term vaginal delivery is increased.
4. Pregnant females bear down more effectively.
5. Incidences of fetal distress is less as oxygen

Saturation is well maintained.

6. Incidences of instrumental deliveries i.e. application of forceps or ventouse etc. is reduced.

7. No incidence of PIH and PPH

8. Lastly there is faster involution of uterus.

Thus our study clearly demonstrated the beneficial effect of Yoga and Garbhsanskar were beneficial in increasing the pain threshold of patient in labour.

It increases the oxygen saturation of mother and fetus. It causes the duration of labour to decrease. It decreases the chances of instrumentation and caesarian rates. Fetal outcome after delivery is improved.

Labour pain is caused by contraction of uterine muscle and stress. Stress causes the imbalance in the uterine muscle contractions. Yoga and Garbhsanskar are acting positively in reducing the stress, thus helping in the patient to bear down properly and effectively. Yoga and garbhsanskar makes the attitude of patient positive.

The approach and the way patient looks at whole of the labour procedure changes. In stressful states with preponderance of sympathetic activity, yogic asanas and pranayama can lead to a state of reduced sympathetic activity shifting the autonomic balance towards relative parasympathetic dominance [9, 10].

Pranayama and yoga work hand in hand to balance and integrate different physiological functions and to help dissolve emotional blocks and negative habit pattern that can obstruct the flow of vital energy within the body [3].

Yoga is effective in physical, emotional, mental and holistic understanding offers to cope with stressful states during pregnancy. Garbhasanskar and yoga are directed towards keeping expectant mother happy and making pregnancy a joyful experience.

Conclusion

Symptoms and different factors considered in study were seen reduced in experimental group compare to control group.

Garbhasanskar and yoga in primigravida has great potential as an effective therapy to tackle stress during pregnancy and delivery.

It helps in good mental and physical development of baby.

Scope of study:

1. Should be a part of ANC treatment in government set up.
2. Yoga and garbhasanskar should be included as a part of the curriculum in OBGY postings.

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