



RESEARCH ARTICLE

CLINICAL STUDY TO ESTABLISH THE EFFECT OF GARBHASHOSHAHARYOGA

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Abstract

Introduction: IUGR is one of the most serious challenges in both developed and developing countries. It is the single most important factor that determines the chances of child survival. Intrauterine growth restriction is said to be present in those whose weight is below the tenth percentile of the average for the gestation age. It remains one of the commonest causes of neonate's morbidity and mortality. 30% of neonatal deaths are due to IUGR. Accurate and timely detection of IUGR can prevent adverse outcomes of pregnancy to some extent. In Ayurvedic text it is described as GARBHASHOSHA, NAGODARA or UPAVISHTAKA. Due to non-availability of proper diet (nourishment) to the garbha or vaginal discharges (bleeding) after conception the garbha suffers from Shosha (emaciation or dryness). These fetuses attain their proper growth or maturity after years and the woman delivers it after years or prolong delays. Vayu is also said to be a cause for dryness of the fetus. Blending of concepts from Contemporary and Ayurvedic disciplines, in an attempt to find solutions to problems of management of IUGR is the need of the day. Maternal and fetal outcome is noted in terms of maternal weight gain, mode of delivery, gestational age, birth weight, apgar score.

Objectives: To study the efficacy of garbhashoshharyoga for treating garbh shosha (asymmetrical intrauterine growth restriction).

Methods: Garbhashoshharyoga was given to 15 patients with IUGR in a dose of 5 gm twice daily with milk orally. This is an open randomized uncontrolled clinical trial which was carried out at OPD of PTSR dept. of R.G.G.P.G. Ay. College Paprola (H.P.).

Conclusion: This study revealed that garbhashoshharyoga has a good effect on fetal growth restriction and nourishment of pregnant women without any side effects to foetus and mother.

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Introduction:-

Growth restriction during intrauterine life is seen proportionally more than other complications in pregnancy. As the foetus relies on mother for nutrition, according to Ayurveda foetus is fed by mother by rasa dhatu through upsneha and upshweda. In pregnancy, rasa dhatu has more responsibilities, i.e. three times than the normal person. It does the nourishment of three factors, viz. fetus, breasts and pregnant woman. The abnormality of rasa vaha srotas will affect

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the generation and nutrition of remaining dhatus . It will affect her general condition, growth of fetus, labour phase as well postpartum phase. Restriction in fetal growth comes under the heading of 'garbhvyapada'. The intimate relationship between the physical and psychological well being of a mother and her child has always been obvious. So the subject of pregnancy and care of the mother and child are of great importance, as they are crucial to social and economic development of the country.

Materials And Methods:-

Study design:

Open randomized uncontrolled clinical trial.

Study Period:

1st July 2015 to 31st Jan 2016.

Study setting:

Department of Prasuti Tantra evam Stri Roga, RGGPG Ay. College, Paprola, Distt – Kangra (H.P.)

Study population:

15 antenatal cases with known last menstrual period (LMP) and suspected of having IUGR (intrauterine growth restriction) based on SFH (symphysis fundal height) were taken.

Ethical considerations:

Informed consent obtained from all subjects. The approval has been taken from the Institutional ethical committee.

Inclusion criteria:

1. Singleton gestation
2. LMP of the patient was well known
3. The gestational age of patient was between 28-36 weeks (calculated from LMP)

Exclusion criteria:

1. Multiple pregnancies
2. Chronic hypertension
3. Impaired renal functions
4. Thyroid dysfunction
5. Diabetes mellitus
6. Patients not willing for trial.

Selection of drug: The drug was described in Astanga Samgraha Chikitsa Sthana, 23/12 in the context of Garbhashaya Gata Vata Chikitsa was taken for study. Patients were treated with granules made from Gambhari Phal, Sariwa, Madhuyasthi and Sharkara.

"kq";fr rq xHksZ ckys'kq p ;'Vhe/kqddk''e;ZQy''kkfjok''kdZjkJ'ra i;ks n|kr~A¼v- la- fp- 23@12½

Table no 1:- Rasa, Guna, Virya, Vipaka of drug :

Sr. No.	Name	Botanical name	Rasa	Guna	Virya	Vipaka	Part used
1.	Sariva	Hemidesmus Indicus	Tikta ,madhura	Guru, snigdha	Sheeta	Madhura	Moola
2.	Madhuk	Glycyrrhiza Glabra Linn.	Madhura	Guru, snigdha	Sheeta	Madhura	Moola
3.	Gambhari	Gmelina Arborea Linn.	Madhura ,tikta kashaya	Guru	Sheeta (phala)	Katu	Phalmajja
4.	Sita	Saccharum officinarum	Madhura	Guru, snigdha	Sheeta	Madhura	

All the contents are to be taken in equal quantity and powder will be prepared, after this the powder will be converted into palatable granules and given to patients with milk.

Dose:

5 gm twice daily with milk.

Assessment Criteria:**Antenatal period:**

follow up visit after every 15 days for serial assessment of symphysis fundal height, maternal weight gain, abdominal girth, fetometry, AFI, fetal weight.

Perinatal outcome:

Period Of Gestation

APGAR Score

Ponderal Index

Laboratory investigations:

For the purpose of assessing the general condition of patients and exclusion of other pathogenesis the following investigation would be performed in patients:

1. Complete Haemogram (Hb, TLC, DLC)
2. Glucose tolerance test (GTT)
3. Triple H, VDRL
4. Urine examination (Routine & microscopic)
5. Biophysical Profile by USG for fetal well being

Observations & Results:-

For interpretation of result grading system was adopted to make the assessment rational and scientific

Table 1:- Age Wise Distribution.

S. N.	Age(in years)	No. of patient	% age
1	18-20	2	13.33%
2	21-23	4	26.67%
3	24-26	5	33.33%
4	27-29	4	26.67%

Table 2:- Habitat wise distribution.

S. N.	Habitat	No. of patient	% age
1	Rural	11	73.33%
2	Urban	4	26.67%

Table 3:- Occupation wise distribution.

S. N.	Occupation	No. of patient	% age
1	House wife	8	53.33%
2	Service	4	26.67%
3	Laborer	3	20%

Table 4:- Education wise distribution.

S. N.	Education	No. of patient	% age
1	Illiterate	1	6.67%
2	Primary	1	6.67%
3	Matriculate	5	33.33%
4	Higher secondary	4	26.67%
5	Graduate	4	26.67%

Table 5:- Diet wise distribution.

S. N.	Diet	No. of patient	% age
1	Vegetarian	10	66.67%
2	Mixed	5	33.33%

Table 6:- Prakruti wise distribution.

S. N.	Prakruti	No. of patient	% age
1	VataPittaja	8	53.33%
2	VataKaphaja	5	33.33%
3	Pitta Kaphaja	2	13.33%
4	Tridoshaja	0	00

Table 7:- Gravidity wise distribution.

S. N.	Gravidity	No. of patient	% age
1	Primigravida	7	46.67%
2	Second gravida	4	26.67%
3	Third gravida	2	13.33%
4	Fourth gravida	1	6.67%

Table no.8:- Gestational age wise distribution.

S. N.	Gestational age	No. of patient	% age
1	29-32 weeks	2	13.33%
2	33-36 weeks	13	86.67%

Table 9:- Effect of therapy on symphysis fundal height.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D. +	S.E. +	T	P
Trial group	2.667	1.200	1.467	.834	.215	6.813	<0.001

Table 10:- Effect of therapy on abdominal girth.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D.+	S.E.+	T	P
Trial group	88.133	104.933	16.800	5.003	1.292	13.006	<0.001

Table no.11:- Effect of therapy on maternal weight.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D.+	S.E.+	T	P
Trial group	55.133	58.133	3.607	1.031	.268	13.545	<0.001

Table 12:- Effect of therapy on fetal weight.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D. +	S.E. +	T	P
Trial group	2.267	1.133	1.133	0.743	0.192	5.906	<0.001

Table 13:- Effect of therapy on fetal head circumference.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D. +	S.E. +	T	P
Trial group	1.600	1.267	.333	.488	.126	2.646	0.019

Table 14:- Effect of therapy on fetal abdominal circumference.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D. +	S.E. +	T	P
Trial group	2.667	1.000	1.667	.617	.159	10.458	<0.001

Table 15:- Effect of therapy on HC/AC ratio.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D. +	S.E. +	T	P
Trial group	2.00	0.200	1.800	.561	.145	2.435	<0.001

Table 16:- Effect of therapy on FL/AC ratio.

Group	Mean score		Difference	Paired 't' test			
	BT	AT		S.D. +	S.E. +	T	P
Trial group	1.933	1.267	0.667	0.617	0.159	4.183	<0.001

Table 17:- Effect of therapy on placental maturity.

Group	N	Mean score		Difference	% change	Paired 't' test			
		BT	AT			S.D.+	S.E. +	t	P
Trial group	15	1	1	00	00	00	00	0	1

Table 18:- Mode of delivery.

S. N.	Mode of delivery	No. of patients in trial group	% age
1	NVD	13	86.66%
2	LSCS	2	13.33%

Results:-

Maximum number of patients i.e. 33.3% in trial group belongs to the age group of 24-26 years, educated up to matriculation, belongs to rural area, vegetarian and of Vata-pittaja Prakruti, majority of them having Madhyamkoshtha and Primigravida.

GarbhashoshaharYoga given in 5 gm twice daily with milk showed extremely significant improvement in Symphysis fundal height, Abdominal girth, Fetal weight, Maternal weight, Amniotic Fluid Index, Fetal abdominal circumference, HC/AC ratio, FL/AC ratio, Fetal heart rate ($P < 0.001$). Mean head circumference of the fetus at the time of birth was 33.98 cm and mean fetal length was 47.79 cm. The mean birth weights of neonates were 2.795 Kg. Neonatal examination reveals that all anthropometric parameters were very close to normal values which indicate the maturity of the fetus.

Conclusion:-

1. Intra Uterine Growth Restriction (IUGR) refers to a condition in which a fetus is unable to achieve its genetically determined potential size. Several disorders affecting fetal health and causing Garbhashosha along with their treatment are described in Ayurvedic classics.
2. Intrauterine growth restriction remains one of the main challenges in maternity care. It affects 3-10% of pregnancies. Perinatal mortality rates are 4-8 times higher and morbidity is present in 50% of surviving infants.
3. GarbhashoshaharYoga is a cheap, effective, tolerable drug during pregnancy. The safety and efficacy of the drug was confirmed by the fact that all women showed maternal and fetal weight gain without any complications after administration of the drug.

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