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INTRA-UTERINE GROWTH RESTRICTION (IUGR) – A PILOT STUDY

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ABSTRACT

Introduction: The proper *Garbhini paricharya* would result in the proper development of the fetus, uncomplicated delivery, the health of the mother and thus her ability to withstand the strain of labour and have an eventless post-partum phase. The care of the pregnant women reflects on the quality and health of the offspring. **Objective** To evaluate the efficacy of *Garbhaposhana Vati* in Intra-Uterine Growth Restriction. **Material and Methods:** A total 5 patients who fulfilled the inclusion criteria were selected and Patients were administered with *Garbhaposhana vati* (2.5gms) 2 BD after food with *Sharkarayukta dugdha* for 3 months of 3rd trimester. **Results:** On Baby weight, within the group analysis, before treatment to after treatment 1, the p value (<0.001) revealed statistically highly significant results.

Keywords: Intra-Uterine Growth Restriction, *Garbhini paricharya* and *Garbhaposhana vati*.

INTRODUCTION

Since the fetus is completely dependent on the mother for nourishment, if there is any improper food intake by the mother it may directly affect the fetus. This may end up in *Garbhasrava*, *Garbha shosha*, *Upavishtaka*, *Nagodara* and *Vikruta garbha*. *Acharya charaka*[1] mentions that due to improper nourishment of fetus or vaginal discharges after conception leads to *shosha*. This fetus attains its proper growth or maturity after years and the woman delivers it after years or prolong delay. *Acharya Susrutha*[2] mention that due to affliction by vatu the fetus gets dried up and does not attain proper growth in the abdomen i.e. the abdominal height is less than the corresponding gestational age. *Acharya Vagbhata*[3] mentions that the upwards motion of *vata dosha* dries *rasavahi* channels of the fetus leads to *vatavyadhi*, becomes emaciated and remains in uterus for years together.

Intrauterine Growth Restriction[4] is diagnosed in the antenatal period by estimating the fetal size & height of the fundus. The measurement in centimeters usually corresponds with the number of weeks of pregnancy after the 20th week. If the measurement is low for the number of weeks, the baby may be smaller than expected. As it is due to maternal malnutrition

causing *vata prakopa*, this *vata dosha* causes *Garbha shosha. Chikitsa* mentioned by *Acharyas* are *Vata shamaka, Balya* and *Brumhana*.

Methodology

Objective of the study: To evaluate the efficacy of *Garbhaposhana Vati* in Intra-Uterine Growth Restriction.

Source of data: 5 patients with clinical features of Intra-Uterine Growth Restriction coming under the inclusion criteria approaching the OPD and IPD of Prasooti Tantra Evam Stree Roga department of SKAMCH & RC, Bangalore was selected for the study.

Sampling Technique: The subjects who fulfill the inclusion and exclusion criteria and complying with the informed consent (IC) were selected for the study.

Method of collection of data

- 5 Patients both primi and multi gravida were selected for this study.
- A case proforma containing all the necessary details pertaining to the study was prepared.
- The data obtained in both groups was recorded and tabulated.

Diagnostic Criteria: Pregnant women diagnosed with asymmetric IUGR.

Inclusion criteria: Pregnant women aged between 18-35yrs in 28th to 32nd week of gestational age with the signs and symptoms of IUGR

Exclusion criteria: Patients with history of any other systemic illnesses that may interfere with the course of treatment.

Intervention: A clinical study with pre-test and post-test was conducted on 5 selected patients. Patients were given *Garbhaposhana vati* (2.5gms) 2 BD after food with *Sharkarayukta dugdha* for 3 months of 3rd trimester.

Assessment Criteria with Grade

Baby weight –

- No improvement – 3
- Improved weight (250 gms to <500gms) - 2
- Improved weight (500 gms to 750gms) - 1
- Improved weight (>750gms to 1000gms) - 0

Observation and Result

Assessment criteria pertaining to Intra-Uterine Growth Restriction were subjected to statistical analysis. For statistical analysis student Paired 't' test was applied for assessment within the group.

Table 1: Showing the effect of treatment on Baby weight as observed within the group

Phase	Mean	SD	SE	t value	p value	Remark
BT-AT	1	0.707	0.158	6.324	p <0.001	HS

On Baby weight, within the group analysis, before treatment to after treatment 1, the p value (<0.001) revealed statistically highly significant results.

DISCUSSION

In the present study *Balya, Brimhana and Santarpana Chikitsa*[5,6] were given to the patients. *Garbhaposhana vati* is prepared from drugs such as *Satavari, Aswagandha* and *bala* drugs.

Method of preparation-Each tablet contains,

- *Shatavari (Asparagus racemosus) churna,* given *bhavana* with *Shatavari kashaya* – 4 gms.
- *Ashwagandha (Withania somnifera) churna,* given *bhavana* with *Ashwagandha kashaya – 3 gms.*
- *Bala (Sida cordifolia) churna,* given *bhavana* with *Bala kashaya – 3 gms.*
- They were made into *churna* and were separated through 80 mesh on sieve. The *Bhavana* was given to them with their own *kashaya*.
- In the above mixture sugar and gum acacia with talcum in paste were added and granules were made from this mixture. The granules were dried and tablet-measuring 250mg were made.

Mode of action-

Garbhaposhana vati are primarily of *Madhura Rasa, Sarva dhatu vivardhana, Tarpana, Preenana* and *Sandhanakara* properties which has the qualities of *Jeevaniya, Balya, Hridya, Brumhana, Rasayana, Ruchya and Shoshahara*. *Shatawari* due to *madhura*

rasa and *vipaka*, *snigdha guna* it acts as vasodilator. Due to this proper circulatory mechanism of *rasa-raktha*, So, fetus gets proper supply of *rasa-raktha.* Saponins present in *shatavari* helps in cellular hypertrophy(growth) and it is *brumhaneeya, sapthadhatu vardhaka* thereby it helps in *Garbhaposhana*. *Ashwagandha* possess *vatakaphagna, brumhana, rasayana, deepaniya, vrishya* and *garbhasthapaka* properties thereby its helps in increase muscle tone of uterus also acts on microcirculation. Antioxidant property neutralizes free radicals thereby limiting the oxidative damage and improves placental circulation which is one of main cause for IUGR. *Bala*, due to *balya, brumhana* and *rasayana* karma it is useful in *Garbhini awastha*, thereby it helps in fetal weight gain. The regular use of these *dravyas* will help in the nourishment the fetus as well as relieving the *Garbhini* from the anticipated symptoms.

CONCLUSION

Intra-Uterine Growth Restriction is a common disorder in obstetrics and carries increasing risk of perinatal mortality and morbidity. Timely diagnosis and management help to reduce the complications because proper evaluation and management result in favorable outcome. Here a study conducted to evaluate the *dravyas*, which possess *Balya*, *Brumhana*, *Rasayana, Garbhaposhana* and *Garbhasthapaka* properties. From result it can be concluded that all patients have showed highly significant results in all the parameters. No adverse effects were observed during this study.

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