

Review Article

A Review of IUGR in Ayurveda

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ABSTRACT:

The ultimate aim of obstetrics is healthy mother and foetus. Delivery of normal neonate depends upon various factors. Infant's birth weight is one of the most important factors affecting neonatal morbidity and mortality. Apart from prematurity, intrauterine growth restriction is a cause of LBW babies. IUGR also causes long term complications like learning disabilities, speech defects etc. In developing countries like India with deficient resources for salvage of LBW babies, UGR causes many anti-partum, intra-partum and post-partum complications in foetus such as oligohydramnios, acidosis, RDS, hyperviscosity syndrome etc., conservative management especially in milder forms of IUGR may still prove to have better survival advantage for the baby.

In Ayurvedic text, various disorders of foetus are described as Garbhavyapada which include Upavishtaka, Nagodara, Garbhakshaya, Garbhashosha etc. along with their treatment. In Ayurvedic texts basically two management principles are described i.e. first brihan Chikitsa for garbhavridhi and second tikshna chikitsa for garbhapatana.

KEY WORDS: Upavishtaka, Nagodara, Garbhashaya, Garbhashosha, IUGR, Garbhavyapad

INTRODUCTION:

Concept of 'Suprajajana' is prime concern of Ayurveda since long. In fact, most of the care of pregnant women is attributed toward the wellbeing of foetus. Various factors contribute towards the birth of healthy neonate. Infant birth weight is one such factor playing vital role in neonatal mortality and morbidity. Along with prematurity IUGR is another important factor causing LBW babies. The incidence of IUGR among hospital born live birth infants is 9.65% as reported by National neonatal prenatal database of India.(1) These new-borns are unique because of their peculiar and increased risk of immediate and long term complication, which include oligohydramnios, acidosis, increased risk for RDS, MAS, IVH, neonatal encephalopathy, hypoglycaemia, hyper - viscosity syndrome .etc Long term sequel include neurological deficit in the form of minimal brain dysfunction, decreased attention span, learning disabilities, speech defects etc.

Timely diagnosis and management of IUGR is one of

the major achievements in contemporary obstetrics. If the growth restricted foetus is identified and appropriate management instituted, perinatal mortality can be reduced, under-scoring the need for assessment of foetal growth at each perinatal visit. There are many drugs and many formulations for IUGR which are supposed to be effective. These can provide a safe, reliable and economical, alternative to available mode of management.

Definition of IUGR:

"IUGR (Intra Uterine Growth Restrictions) is when baby appear to be small than expected- Specially, if the ultrasound indicates that their weight is below the 10th percentile for their gestational age."

Foetal weight is determined by the genetic growth potential, the health of foetus, the capacity of mother to supply adequate quantity and quality of substrate required for growth and ability of placenta to transport that nutritional substrate to the foetus.

Types of IUGR:

IUGR is broadly divided into two groups-

1. Symmetrical IUGR
2. Asymmetrical IUGR

From which Asymmetrical IUGR is uncomplicated and can cure with good prognosis.

Etiological factors:**Foetal Factors:**

1. Chromosomal abnormalities,
2. Congenital malformations,
3. Congenital infections,
4. Multiple pregnancies,
5. Utero placental insufficiency and

Maternal factors:

1. nutritional deprivation,
2. Various maternal diseases like PIH, chronic hypertension, sickle cell Anaemia, etc,
3. Smoking,
4. Alcohol,
5. Narcotics and other drug abuse.

Parameters for clinical diagnosis:

1. Fundal Height
2. Abdominal girth

Investigations:

1. Serial ultrasonography
2. Colour Doppler

There are no effective conservative therapies of IUGR. Though bed rest, nutritional supplements hyperoxygenation, low dose aspirin are described as conservative management.

To study the IUGR in Ayurvedic point of view we just have to see-

1. What is GARBH-POSHANA?
2. Correlation of IUGR with GARBHINI VYADHI.
3. NIDAN PANCHAKAM of IUGR.
4. CHIKITSA of IUGR

In Ayurvedic text, various aspect of embryology including preconceptional Shuddhi of Shukra, Arthava, Garbhashaya, Yonimarga, Garbhotpatti, Garbhaposhan etc are described in details. Various disorder affecting foetal health such as Garbhastrava-pata, Upvistaka, Nagodara, Garbha-shosha, garbhashaya, Lingarbha, Mritgarbha are also described in depth along with their treatment. Among these Upvishataka, Nagodara, Garbbashosha, Garbhakshaya are the conditions which results due to vikruti in Garbhaposhan causing reduction in foetal growth.

Upvishataka:

While describing Upavishtaka, Acharya Charaka had stated that, if bleeding per vaginum or other type of discharges occurs in pregnant female having Sanjatsara garbha, the foetus does not grow properly and stay in uterus for very long time. Acharya Vagbhata further added presence of spuarna i.e. foetal movement, no kukshivardhana as symptoms of Upavishtaka. We can say that; this is the initial stage of IUGR where the foetus shows primary adaptive response to inadequate nutrition in the form of decrease in growth.

Garbhashosha:

According to Acharya Charaka, foetus suffers from Shosha due to non-availability of proper nourishment and attain its proper growth after years. Acharya Sushruta further added 'Manda -spandana' (reduced foetal movements) as a symptom. In IUGR after decrease in foetal growth rate, if malnutrition continues, then decrease in foetal movement occurs to conserve energy as described in Garbhashosha hence Garbhashosha can be stated as 2nd stage of IUGR.

Nagodara:

While describing Nagodava, Acharya Charaka stated that the pregnant female often observes fasts, eats stale food and uses other Vata vitiating factors, her fetus gets desiccated and does not grow. This fetus remains in the uterus for a very long time and does not show Spandana i.e fetal movement. Acharya Vagbhata described parihyamana garbha and 'chirat spandana' as symptoms. Same occurs in IGUR, when non-availability of nutrients continues, haemodynamical redistribution occurs to favour oxygenation of organ like brain and heart. This leads to reduce blood flow to foetal kidney which further leads to renal insufficiency and decrease in amniotic fluid volume. This may present as reduced fundal height i.e parihyamana udarvridhi.

And if no any intervention done at this stage, foetus shows s/o acidosis and further intra uterine death. which is stated as 'linga - garbha' and then 'antarnuritgarbha'.

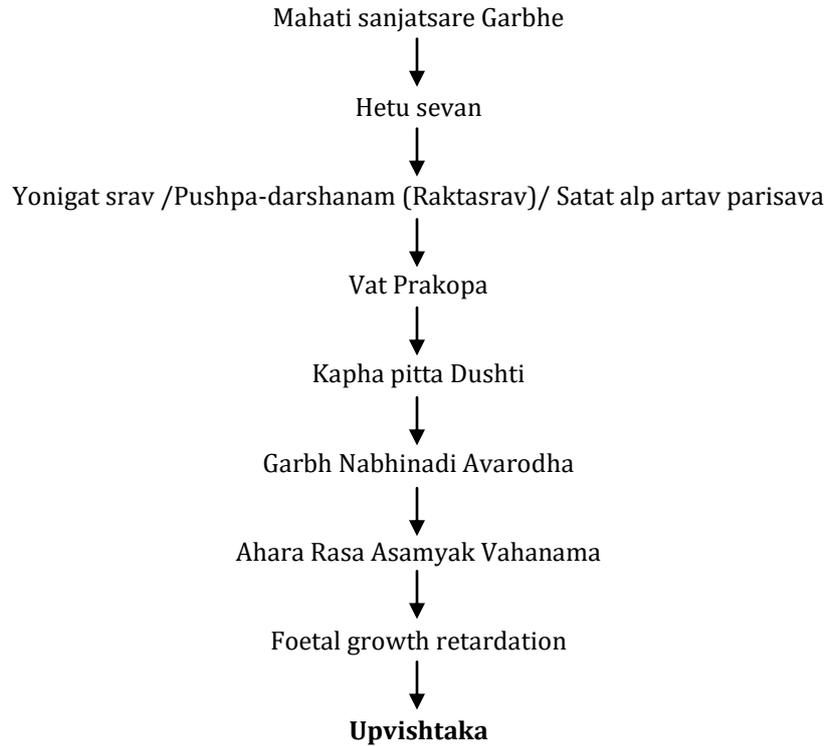
Nidan Panchak:

i. Hetu (Etiological factor) - i.e. Garbhopghatkar bhavas.

1. Ahara - Tikshna, Ushna, Guru, Vishtambhi bhajana, Madya Mans sevan, Upavas etc.
2. Vihara - Uttan Shayan, Kathin - Utkat asana, vyavay, vyayam, Akal Jagaran, Shok, Krodh, Bhay, Udwega, Veg vidharan etc.
3. Aushadhi - Vamana, virechana, Rakta-mokshana,

tikshna aushadhi, Ashtam maas purva bastikarma etc.

ii. Samprapti (Patho physiology):



Other Garbhini-vyadhi given previously also has same pathophysiology with some minor changes.

Treatment:

In treatment Acharyas described Brihaniya-Jeevaniya, Madhur aushadhi siddha ghrutasevan, Ksheer Mansarasa, Amagarbha sevan, Ksheerbasti and Vatahar chikitsa. Acharyas also mentioned use of Tikshna-virechaniya dravya or Aparapataniya dravya for patana and Yana-vahana, Dhanyakuttana, kshobhana, marjan, etc.

It means if foetal growth does not occur with above measures, then termination of pregnancy should be done with the help of Tikshna-virechaniya and Aparapataniya dravya.

CONCLUSION:

Upavishtaka, Garbhashosha, Nagodara, Linagarbha are different stages of IUGR according to severity of the disease. Two different principles of treatment of Upavishtaka, Nagodara are described in Ayurvedic texts. Conservative management is advised in milder forms of IUGR followed by Tikshna chikitsa for termination of pregnancy in severe forms of IUGR. This Ayurvedic conservative management can be beneficial in IUGR which is caused due to placental insufficiency, maternal nutritional deprivation. Rest causes are more likely to be untreatable like chromosomal abnormality, congenital abnormality etc

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