VOLUME - 10, ISSUE - 08, AUGUST- 2021 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Ayurveda

AYURVEDIC AND MODERN REVIEW ON MRITA GARBHA

Dr. Karishma U. Pathan PG Scholar, Department of Prasuti tantra and stree roga, Parul Institute of Ayurved, Vadodara, Gujarat.

Dr. Asokan V* Professor, Department of Prasuti tantra and stree roga, Parul Institute of Ayurved, Vadodara, Gujarat. *Corresponding Author

ABSTRACT Fetal demise in the womb after the 20th week of pregnancy is called Intrauterine fetal death. Intrauterine fetal death is never the desired outcome of pregnancy, but it can happen for a variety of reasons such as genetic disorders or infection. Incidence of IUFD in India, reported from various centres ranges between 24.4-41.9%. In *Ayurveda*, Intrauterine fetal death is compared with *Mritagarbha*. *Mritagarbha Nidana*, *Lakshanas*, *Samprapti* and *Chikitsa* of *Ama Garbha* and *Pakwagarbha* is described in *Ayurveda*. Accumulation of *doshas*/ excessive use of hot or pungent dravyas, suppression of urges are common causative factors of IUFD. In *Atharvaveda*, *Mantra chikitsa* as a part of the treatment is described and *shalya aharana* is indicated for *antarmrita garbha*.

KEYWORDS : *Ayurveda*, IUFD, *Mritagarbha*, *Chikitsa*

INTRODUCTION:

Intrauterine Fetal Death (IUFD) embraces all fetal deaths weighing 500 g or more occurring both during pregnancy (antepartum death) or during labor (intrapartum). But death of a fetus weighing less than 500 g (before 22 weeks) has got a distinct etiology and is usually termed as abortion. Death during labor ends in delivery of a fresh stillborn and does not pose a problem for management. Thus for practical purpose, antepartum death occurring beyond the period of viability is termed as intrauterine death. It usually results in the delivery of a macerated fetus. There is a gradual decline in the incidence of IUFD. Preconceptional care, care during pregnancy and labor, provision for prenatal diagnosis and selective termination in congenital anomalies are the possible reasons.[1]

The National center for health statistics, USA divides fetal death into three categories.

Early- <20 weeks
Intermediate- 20-27 weeks
Late- ≥28 weeks[2]

Etiology:

The fetal deaths are related to maternal (5–10%), placental (20–35%) or fetal (25–40%) complications. Such a complication may be chronic (usual) or acute (rare) to produce placental insufficiency. However, in about 25–35% of cases the cause remains unknown (Table No. 1). Abnormal test results may not be the actual cause for IUFD.[3]

Table No. 1 Causes of Intrauterine Fetal Death[4]

Maternal (5-10%)	Fetal (25-40%)	Placental (20-35%)	Iatrogenic	Idiopathic (25-35%)
1.Hypertensive disorders 2.Diabetes in pregnancy 3.Maternal infections 4.Hyperpyrexia 5.Antiphospholipid syndrome 6.Thrombophilias 7.Abnormal labour 8.Post term pregnancy 9.Systemic lupus erythematosus	1.Chromosomal Abnormalities 2.Major structural anomalies 3.Infections 4.Rh-incompatibility 5.Non-immune hydrops Growth restriction	1. APH 2. Cord obstruction 3. Twin transfusion 4. Placental insufficiency	1.External cephalic version 2.Drugs (quinine beyond therapeutic doses)	Cause remains unknown even with thorough clinical examination and investigations

Morbid Pathology:

The dead foetus undergoes an aseptic degenerative process called maceration. The epidermis is the first structure to undergo the process, whereby blistering and peeling off of the skin occur. It appears between 12 and 24 hours after death. The foetus becomes swollen and looks dusky red. Gradually aseptic autolysis of the ligamentous structure and liquefaction of the brain matter and other viscera take place.[5]

Diagnosis:

Repeated examinations are often required to confirm the diagnosis.

Symptoms: Absence of fetal movements which were previously noted by the patient.

Signs:

Retrogression of the positive breast changes that occur during pregnancy is evident after variable period following death of the fetus.

Per Abdomen Examination:

Gradual retrogression of the fundal height and it becomes smaller than the period of gestation.

Uterine tone is diminished and the uterus feels flaccid. Braxton-hicks contraction is not easily felt.

Fetal movements are not felt during palpation.
Fetal heart sound is absent. Use of Doppler ultrasound is better than the stethoscope.

Cardiotocography (CTG): Flat trace.
Egg-shell crackling feel of the fetal head is a late feature.

Investigations:

Sonography: Earliest diagnosis is possible with sonography.

The evidences are: (a) Lack of all fetal motions (including cardiac) during a 10-minute period of careful observation with a real-time sonar is a strong presumptive evidence of fetal

death and (b) Oligohydramnios and collapsed cranial bones are evident.

Straight X-ray abdomen: Rarely done at present. The following features may be found, either singly or in combination.

Spalding sign: The irregular overlapping of the cranial bones on one another is due to liquefaction of the brain matter and softening of the ligamentous structures supporting the vault. It usually appears 7 days after death.

Hyperflexion of the spine is more common. In some cases hyperextension of the neck is seen.

Crowding of the ribs shadow with loss of normal parallelism. Appearance of gas shadow (Robert's sign) in the chambers of the heart and great vessels may appear as early as 12 hours but difficult to interpret.[6]

BLOOD: To estimate the blood fibrinogen level and partial thromboplastin time periodically, when the fetus is retained for more than 2 weeks.

Recommended Evaluation for a Still birth: Hematological examination, Infant- for malformation- (skeletal- X-Ray), umbilical cord for entanglement, Autopsy and chromosome studies are done for foetuses with anomalies and dysmorphic features.

Complications: Psychological upset, Infection, Blood coagulation disorders, during labor- Uterine inertia, retained placenta and postpartum haemorrhage.

Management:

Prevention:

- Preconceptional counselling and care
- Prenatal diagnosis
- To screen 'at-risk mothers'
- Assessment of foetal well-being and to terminate pregnancy with the earliest evidences of foetal compromise.

Expectant Attitude:

- 80% of cases, spontaneous expulsion occurs within 2 weeks of death.

Reason for early delivery:

- Reliable and early diagnosis can be made with real time ultrasonography
- Prostaglandins are available for effective induction and complications can be avoided.[7]

Methods of delivery:

Medical Induction:

1. Combination of mifepristone and a prostaglandin, A single dose (200mg) of oral mifepristone and misoprostol (PGE1) intravaginal 25 μg 4 hrly are safe.
   Mifepristone (600 mg daily orally for 2 days) alone can be used.
2. Misoprostol (PGE1) 25-50 μg vaginally or orally. It can be repeated every 4 hrs.
3. Prostaglandins (PGE2): Gel or lipid pessary high in the posterior fornix in case where the cervix is unfavourable.
4. Oxytocin infusion: 5-10 units of oxytocin in 500 ml Ringer's solution is administered through IV in case where the cervix is favourable. In case of failure 20 units of oxytocin in 500 ml RL and run 30 drops per minute.
5. PGE2 gel may be used safely in women with previous LSCS.

Post partum suppression of lactation:

Cabergoline single dose (1mg).

A psychologist or a counsellor for support.[8]

Ayurvedic Concept of Mritagarbha:

When there is excessive accumulation of doshas/ excessive use of hot or pungent dravyas, suppression of urges (flatus,urine, faeces) sitting, sleeping, standing in improper posture, increase in intra-abdominal pressure, injury or trauma, anger, grief, jealousy, fear, frightening etc., over exertion all may cause intra-uterine foetal death (IUFD).[9]

The physical, psychological or traumatic disorders of mother or the foetus may lead to IUFD or mrita garbha.[10]

Common causative factors for abortion and IUFD in addition to those mentioned earlier are vyavayadi causes, uncongenial diet, daiva yoga driven by deeds of previous life (mother/foetus), thus the garbha is detached like the fruit from its tree to meet its end.[11,12]

If mother is devoid of food or foetus is devoid of food due to obstruction in nabhi nadi it leads to IUFD.[13]

Samprapti:

Vagbhata has described a common pathogenesis for both abortion and IUFD.[14]

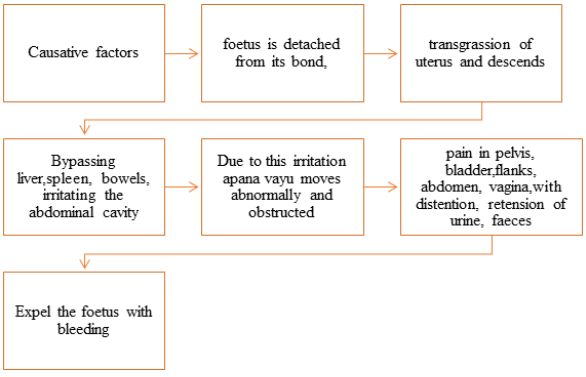

Chart No.1 Samprapti of Mritagarbha

Lakshana (Clinical features):

Stillness, stiffness, stretch/tightness, cold, stony hard, the foetus does not quiver, severe pain, absence of uterine contractions, no vaginal discharges, laxity of eyes, blackouts, giddiness, dyspnoea, discomfort, natural reflexes like bowel and bladder is disturbed.[15] Other features, Blackish or whitish discolouration, foul breath and pain described by Sushruta.[16] Coldness,thirst, languid, restless while standing, sitting or lying down, instability, lax or shrunken eyes explained by Acharya vagbhatta.[17]

According to Acharya Harita giddiness, unconsciousness, thirst, distension, obstruction to vayu, restlessness, syncope, vomiting, stony hardness of abdomen, miserable state.[18]

Reddish blue discoloration of the body is another feature describe by Rasa ratna samuchhaya.[19]

CHIKITSA:

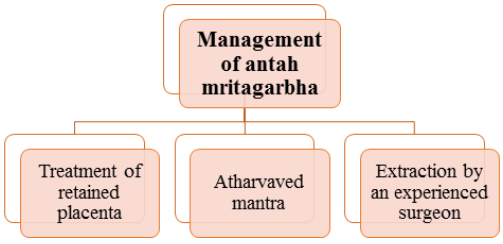

Chart No.2 Management of Mritagarbha (IUFD)

Treatment after extraction of foetus:

Ama garbha: After expulsion of Amagarbha, for cleaning of uterus, soothing pain and elevating her mood, wine is given according to one's own strength.

For strength-Brmhana or santarpana(without sneha) yavagu is given.

This regimen is followed till the kleda of dosha, dhatu are cleared. Later dipaniya, jivaniya, brimhaniya, madhura, vatahara dravyas processed in sneha should be given as pana, vasti and ahara.[20]

Pakva garbha: Sneha is prescribed from the day of extraction.[21]

The extraction of a foetus, acting as on obstructing shalya (foreign matter), is the most difficult among all surgical operations, as actual manipulation is the only way to a surgeon in the region of the pelvic cavity, the spleen, the liver, the intestines and the uterus. The sacred verses (Mantras), possessing of the virtue of bringing out the foetus, should be recited in the hearing of the expectant mother in the case of a failure in the first attempts of stimulating birth.

In case of the foetus being dead in the womb, the expectant mother should be made to lie on her back with thighs flexed down and with a pillow of rags under her waist in order to elevate it. Then the physician should lubricate his hand with a compound consisiting of earth, ghee and juice of sallaki, dhanvana and shalmali and inserting it into the Yoni (vaginal canal) should draw out the dead foetus.

In case of there is a need of using an surgical instrument for the purpose of delivery, the enceinte should be encouraged before doing the surgical operation. The head or skull of the child in such cases should be cut with the knife known as the Mandalagra or the Anguli Sastra, then carefully remove the pieces of the skull bone,the foetus should be drawn out by pulling it at its chest or at the shoulder with a Sanka (forceps), where the head would not be punctured and smashed , the foetus should be drawn out by pulling the cheeks or orbits. The hands of the foetus should be cut from the body at the shoulders, when they are obstructing the passage and then the foetus should be drawn out. The abdomen of a child, dead in the womb should be pierced and the intestines drawn out.the bones of the thighs should be first cut out and removed, where the foetus would be found presented in the passage with its thighs.[22]

Snuhi kshira applied on head of garbhini immediately expels the intrauterine dead foetus.[23]

CONCLUSION:

Mritagarbha nidana, *lakshanas*, *samprapti* and *chikitsa* of *Ama Garbha* and *Pakwagarbha* is described in *Ayurveda*. *Accumulation* of *doshas* / excessive use of hot or pungent *dravyas*, suppression of urges are common causative factors of IUFD. Extraction method is also described in *Ayurveda*. Mrita garbha can correlate with intrauterine fetal death in modern and causes of IUFD are described as maternal, fetal, placental, iatrogenic and idiopathic. In modern prevention and medical induction methods of IUFD are also described.

REFERENCES:

1. DC dutta's Textbook of Obstetrics, Hiralal Konar, 9th Edition: 2018, Jaypee Brothers Medical Publishers Ltd, Pg no.302
2. IAN DONALD'S Practical Obstetric Problems, Editor: Renu Mishra, Seventh Edition 2014, Wolters Kluwer India Pvt. Ltd., New Delhi, Pg No. 435
3. DC dutta's Textbook of Obstetrics, Hiralal Konar, 9th Edition: 2018, Jaypee Brothers Medical Publishers Ltd, Pg no 302
4. DC dutta's Textbook of Obstetrics, Hiralal Konar, 9th Edition: 2018, Jaypee Brothers Medical Publishers Ltd, Pg no 303
5. DC dutta's Textbook of Obstetrics, Hiralal Konar, 9th Edition: 2018, Jaypee Brothers Medical Publishers Ltd, Pg no 302,303
6. DC dutta's Textbook of Obstetrics, Hiralal Konar, 9th Edition: 2018, Jaypee Brothers Medical Publishers Ltd, Pg no 303
7. DC dutta's Textbook of Obstetrics, Hiralal Konar, 9th Edition: 2018, Jaypee Brothers Medical Publishers Ltd, Pg no 304
8. DC dutta's Textbook of Obstetrics, Hiralal Konar, 9th Edition: 2018, Jaypee Brothers Medical Publishers Ltd, Pg no Pg no 305,306
9. Charak Samhita, Vol-1, Dr. Brahmanand tripathi, Chaukhambha Surbharati Prakashan, Varanasi, Edition: 2013,Pg no 951
10. Sushrut Samhita nidana sthan, vol-1, Kaviraj dr, ambikadatta shastri, Chaukhambha Sanskrit SANSTHAN VARANASI PG NO. 340 edition: 2015
11. Astanga Samgraha, Dr. Shivprasad sharma, Chaukhambha Sanskrit series, Varanasi, Edition: 2012, pg no.295
12. Ashtang Hridayam, Dr. Brahmanand tripahi, Chaukhambha Sanskrit Pratishthan, Delhi, Edition: 2012, Pg No.360
13. Harita Samhita, Vaidya jaimini pandey, Chaukhambha Vishvabharati Varanasi, edition 2010, pg no. 475
14. Astanga Samgraha, Dr. Shivprasad sharma, Chaukhambha Sanskrit series, Varanasi, Edition: 2012, pg no.295
15. Charak Samhita, Vol-1,Dr. Brahmanand tripathi, Chaukhambha Surbharati Prakashan, Varanasi, Edition: 2013,Pg no 951
16. Sushrut Samhita nidana sthana, vol-1, Kaviraj Dr, Ambikadatta shastri, Chaukhambha Sanskrit Sansthan Varanasi Pg No. 340 edition: 2015
17. Ashtang Hridayam, Dr. Brahmanand tripahi, Chaukhambha Sanskrit Pratishthan, Delhi, Edition: 2012, Pg No.360
18. Harita Samhita, Vaidya jaimini pandey, Chaukhambha Vishvabharati Varanasi, Edition 2010, pg no. 474
19. Rasa ratna Samuchhaya by Kaviraj sri ambikadatta sastri, Chaukhambha Amarbharati Prakashan pustakalaya, edition 2015, pg no.506,507
20. Charak Samhita, Dr. Brahmanand tripathi, Chaukhambha Surbharati Prakashan, Varanasi, Edition: 2013,pg no 952
21. Charak Samhita, Vol-1. Dr. Brahmanand tripathi, Chaukhambha Surbharati Prakashan, Varanasi, Edition: 2013,Pg no 953
22. Sushruta Samhita of maharshi sushruta with English translation of text and Dalhana's commentary with Critical notes vol.2 , Prof. Vasant C. patil, Dr. Rajeshwari N.M., Chaukhambha publications, new delhi, Edition : first, 2018, pg no.- 411-413
23. Bhaishajya Ratnavali, Vol-2, Dr. Ravindra Angadi, Chaukhamba Surbharti Prakashan, Varanasi, Edition: 2018,pg no 1658