



Review Article

BOH (BAD OBSTETRIC HISTORY) - AN AYURVEDIC PERSPECTIVE

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ABSTRACT

Pregnancy is a crucial event in life that requires considerable physiological and psychological adjustment by the mother; by accepting which she starts an incredible journey of life. Rather the pregnancy loss is a frustrating and challenging problem for the couple as well as for obstetrician. It is associated with guilt, embarrassment and depressive states especially in cases where patient conceives with added concerns of primary or secondary infertility due to various causes. Such patient presents with bad obstetric history, this needs detailed consultation and proper line of treatment.

In Ayurveda *Putraghni Yonivyapad* is described where repeated abortions or the early neonatal deaths are explained which are due to *Artava Dosha*, *Rakta Dosha*, *Raktastrava* and *Raktakshaya*. When we came across with descriptions given by different *Acharyas* we come to know that these all points came under the Bad Obstetric History described in modern science. As we all know that Ayurveda is a science of life. The management of *Sadhya Vyadhi* is explained in it, by following line of treatment through Ayurveda we can minimize the adverse outcome in BOH.

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INTRODUCTION

The term BOH (Bad Obstetric History) implies recurrent miscarriages, History of previous unfavorable fetal outcome in terms of two or more consecutive spontaneous abortions, early neonatal deaths, stillbirths, intrauterine fetal death, preterm births & congenital anomalies^[1]. A recent study was carried out on BOH by G Singh & K Sindhu which was a prospective type, concluding APLA, hypertension, malpresentation, cervical incompetence, preterm deliveries and caesarean section were found significantly more in BOH group. In Ayurveda, *Putraghni Yonivyapad* and *Jatagni Yonivyapad* are described in which causes of repeated abortions and repeated early neonatal deaths are explained. Acharya Chakrapani explains the fetuses irrespective of sex are destroyed, still it is termed as *Putraghni* as destruction of male progeny predominates^[2]. Acharya Vagbhata said it as *Jatagni Yonivyapad* because the aggravated *Vayu* repeatedly kills the neonates^[3]. Along with causes treatment modalities are given which can be followed to overcome the

adverse outcome in cases of bad obstetric history. In present study the *Nidana & Samprapti* of *Putraghni/Jatagni Yonivyapad* is scientifically studied and simplified in view of modern science.

MATERIALS AND METHODS: *Brihatrayi* and *Laghutrayi* are preferred for the Ayurvedic references and for modern aspect books of Gynecology & Obstetric are preferred.

Etiology of BOH according to modern science

1) Genetic causes: It contributes 2-5% of BOH cases which includes a) Chromosomal abnormalities in the embryo or fetus b) Parental chromosomal abnormalities. The most common type of parental chromosomal abnormality is, balanced reciprocal or Robertsonian translocations associated with advanced maternal age and premature ovarian failure. 50-70% of genetic pregnancy losses are due to chromosomal aneuploidies, most common are Monosomy x and Trisomy 16, 13, 18 & 21^[4].

2) Hormonal causes: It contributes 10-20% of recurrent miscarriages which includes

a). Luteal phase defect associated with low progesterone levels with poor follicular phase oocyte development resulting in disordered estrogen secretion and subsequent dysfunction of the corpus luteum.

b). **PCOS:** Hyper secretion of LH in PCOS resulting in elevation of LH:FSH ratio thought to be responsible for recurrent miscarriages.

c). **Hypothyroidism:** It may cause ovulatory dysfunction and LPD. Maternal hypothyroidism in second trimester has been found to be associated with an increased rate of fetal death after 16 weeks of gestation.

d). **Diabetes Mellitus:** High HbA1C levels in first trimester are at an increased risk of miscarriages and fetal malformations.

e). **Hyperprolactinemia:** High PRL may adversely affect corpus luteal function.

3) Infectious causes: Any severe infection that leads to bacteremia or viremia can cause sporadic miscarriage.

a). **TORCH:** Infection caused due to TORCH complex are thought to be important cause of BOH. These infections are mild in mother but can prove disastrous to fetus. It is treatable one.

b). **Bacterial Vaginosis:** Strongly associated with late miscarriages, preterm rupture of membranes and preterm labor.

c). **Syphilis:** It has been implicated as the cause for second trimester abortions, stillbirths, preterm labor, IUGR and neonatal infections etc.

d). **Chronic Endometritis:** May be due to organisms such as chlamydia, mycobacterium tuberculosis etc. associated with infertility and unexplained miscarriages.

4) Anatomical causes: It is the most common cause of BOH responsible for approximately 12-15% case of recurrent abortions^[5].

a). **Congenital Uterine Anomalies:** It includes Mullerian duct abnormalities, Septate uterus (50-60%), Unicornuate uterus (34-44%), Uterus didelphys, Arcuate uterus and Agenesis of cervix-vagina- fundus- tubes separately or combined^[6].

b). **Acquired uterine anomalies:** It includes Leiomyoma and Endometriosis. Uterine abnormalities could result in impaired vascularization of pregnancy and limited space for growing fetus due to distortion of the uterine cavity.

c). **Cervical Incompetence:** It is also one of the most common cause of second trimester abortions contributing 20-25% and preterm labor^[7].

5) Immunological causes

a). **Auto immune factors:** It includes synthesis of antibodies like Antiphospholipid antibodies (APA), Antinuclear antibodies (ANA) and Antithyroid antibodies. It causes miscarriages by forming antibodies against the body's own tissue and placenta, resulting in thrombosis of vessels and placental infarction. The uteroplacental blood flow reduction results in the uterine growth retardation, Oligohydroamnios and fetal hypoxia all of which leads to fetal demise.

b). **Alloimmune factors:** The maternal immune system recognizes implanting embryo as foreign body and produces blocking antibodies thereby protecting embryo from rejection. In recurrent miscarriages there is absence of these blocking antibodies due to failure of recognition of cross reactive antigens of trophoblastic lymphocyte by the mother. Rh incompatibility is also one of the most common causes of recurrent abortion and neonatal death.

In Ayurveda, *Acharyas* have explained 20 *Yonivyapadas* which are responsible for various gynecological disorders in which *Putraghni Yonivyapad* is one. It is responsible for repeated abortions and neonatal deaths. According to *Acharya Charaka*, due to consumption of *Vatakar aahar* and *Vihar* there is aggravation of *Vayu* in the body which repeatedly destroys the fetuses conceived with vitiated *Shonita*^[8]. According to *Sushrut Acharya*, the fetuses after attaining stability are repeatedly destroyed due to bleeding per vaginam in which symptoms of *Pitta* vitiation like burning sensation is also present^[9]. According to both *Vagbhata* aggravated *Vayu* due to its dryness property repeatedly kills the neonates immediately after birth conceived with vitiated *Artava*, so the entity is termed as *Jataghni Yonivyapad*^[10]. *Bhavprakash*, *Yogratnakar* and *Madhavnidan* have given the similar description as *Sushrutacharya*.

Except *Vagbhata* II other classics have mentioned main clinical feature as repeated abortions after stability of fetus or abortions during second trimester. While *Vagbhatacharya* said it as a repeated neonatal deaths.

Etiology According to Ayurveda

विंशतिर्व्यापदोयोनेर्निर्दिष्टारोगसङ्ग्रहे॥७॥

मिथ्याचारेणताःस्त्रीणांप्रदुष्टेनार्त्वेनच॥

जायन्तेबीजदोषाच्चदेवाच्चशृणुताःपृथक्॥८॥ (Cha.Chi.30)

Mithya Ahar Vihar, *Pradushta Artava*, *Beejadosha* and *Daiva* are the main causes of all gynecological disorders^[11]. Besides these abnormalities of *Shonita* or blood, bleeding per *Vaginam*, loss of blood and abnormalities of *Artava* are the causes of repeated

abortions. *Mithya Ahar Vihar* includes *Vata* aggravating diet and mode of life. *Artava* can be considered as menstrual blood i.e., *Shonita* or ovum or the ovarian hormones. *Beejadasha* means the congenital anomalies or the genetic disorders. The unexplained causes or idiopathic causes come under the *Daiva*.

Artava as an ovum: It includes chromosomal abnormalities like single gene defect, monosomy and trisomy which are responsible for the first trimester abortions. *Artava* as a *Shonita- Dushtashonita* is said to be the cause of repeated abortions and neonatal death which includes Rh incompatibility, auto immune factors, Alloimmune factors and infections like TORCH, Bacterial Vaginosis, Syphilis and chronic endometritis. *Artava* as ovarian hormone- when we consider it as a hormone it includes luteal phase defect, PCOS, hypothyroidism and hyperprolactinemia which are responsible for the recurrent miscarriages. *Beejadasha* includes the congenital anomalies like congenital uterine anomalies which are mostly responsible for the second trimester abortions.

Samprapti: Due to *Mithya aharvihar* there is aggravation of *Vata* causing vitiation of *Artava* or *Shonita* leading to repeated abortions after stability of fetus that is termed as *Putraghni Yonivyapad*.

Chikitsa: According the quotation of *Vridhdha Vagbhata*, there is no gynecological disorder without *Vata* involvement^[12] means, for all types of gynecological disorders *Vata* vitiation is responsible. So while treating any type of gynecological disorder or *Yonivyapad* first we have to give *Vatashamak Chikitsa* and then corresponding vitiating *Dosha* should be pacified. According to *Charakacharya*, all the *Yonivyapadas* should be treated with *Mridu Vamanadi Panhkarma* regimen followed by *Snehan* and *Swedana*. After the *Shodhana Karmas Sthaniya Karma* should be performed and *Abhyantar Aushadhi* should be given ^[13]. According to *Sushrutacharya*, in all types of *Yonirogas* first *Snehadi Karma* should be performed followed by *Shodhanopakrama* and then drugs should be used according to other vitiated *Doshas*. *Uttarbasti* can also be performed^[14]. According to both *Vagbhatas Vamanadi Panchkarma* should be carried out in mild form followed by *Sneha* and *Sweda*. After complete purification all other *Sthaniya Chikitsa* should be given ^[15].

Vishesh Chikitsa: *Uttarbasti* is done with *Kashmari & Kutaja Siddha Ghrita* ^[16]. *Utkarika* made with *Kalka* of barley, wheat, *Kinva*, *Kushtha*, *Shatapushpa*, *Shrayava*, *Priyangu*, *Bala*, *Akhuparni* should be applied locally ^[17]. *Phala Sarpi* ^[18], *Pusyanuga Churna* ^[19], *Brihatshatavari Ghrita* ^[20], *Triphaladi Ghrita* ^[21],

Maharasnadi Kwatha ^[22], *Jirakadi Modak* ^[23] may be given as an internal medication.

In modern science according to the causative factors the treatment should be performed.

- 1) **Psychological Support:** It is important to alleviate patient's anxiety and provide psychological support. About 40-50% of total cases of recurrent abortions remain unexplained, for such cases tender loving care especially by family and partner, reassurance and supportive are all that usually required.
- 2) **Genetic Counselling:** Genetic abnormalities require referral to a clinical geneticist. Familial chromosomal studies and appropriate prenatal diagnosis in future pregnancies gives the couple a good prognosis for future pregnancies. These couples should also be offered the options of preimplantation genetic diagnosis, IVF, donor gametes, adoption etc.
- 3) Control of diabetes and thyroid dysfunction avoids recurrent miscarriages due to hormonal causes.
- 4) Operative Hysteroscopy can help in treatment of the anomalies like removal of submucous leiomyoma, resection of intrauterine adhesions and resection of intrauterine septa in congenital uterine anomalies.
- 5) Treatment of luteal phase defect is done using micronized progesterone in dosage of 100mg daily and should be continued until 10-12 weeks following gestation.
- 6) In case of polycystic ovarian syndrome, weight reduction, use of insulin sensitizing agents (metformin) and ovulation induction with clomiphene citrate should be done.
- 7) Antiphospholipid antibody syndrome should be treated with LDA (low dose aspirin) and LMWH (low molecular weight heparin) as per the protocol. Therapy is usually withheld at the time of delivery and is restarted after delivery continuing for 6-12 weeks postpartum.
- 8) Inherited Thrombophilias should be treated with antithrombotic therapy with heparin 5,000 IU subcutaneously once daily usually administered up to 34 weeks of gestation.
- 9) For treating the Cervical Incompetence various operative procedures are given like, McDonald procedure, Shirodkar Technique, Wurm's procedure also known as Hefner's cerclage. Transabdominal cerclage can be done in traumatic cervical laceration, congenital shortening of the cervix, previous failed vaginal cerclage and advanced cervical effacement. By

these management preterm labors can be avoided.

- 10) For cases where infectious organisms are responsible for recurrent miscarriages appropriate antibiotics should be used according to causative micro-organism. For e.g. penicillin (syphilis), ganciclovir (cytomegalovirus), acyclovir (genital herpes), pyrimethamine and sulfadiazine (toxoplasmosis).

DISCUSSION

When we go through the description given by *Acharyas* in Ayurveda the causes of *Putraghni Yonivyapa* can be collected under the headings,

- 1).*Dushta Shonitjanya* 2).*Dushta Artavajanya* 3).*Raktastravajanya* 4).*Raktakshayajanya*

1) *Dushta Shonitjanya*: *Shonita* can be considered as a blood i.e., *Dushta Shonita* means blood disorders which includes Rh incompatibility, immunological factors like autoimmune and alloimmune factors and infections like TORCH, Syphilis, bacterial Vaginosis and chronic endometritis which are responsible for the recurrent miscarriages, neonatal deaths and preterm labor leading to bad obstetric history. Blood coagulation disorders like inherited thrombophilia in which there is mutation in prothrombin gene, hyperhomocystinemia and deficiency in antithrombin III causing thrombosis /infarction of the placental vessels leading to miscarriages. Also in cases of pregnancy induced hypertension if it's untreated there is an uteroplacental insufficiency and impaired blood flow to the fetus causing fetal hypoxia and intrauterine fetal death.

2) *Dushta Artavajanya*: When we consider *Artava* as a ovum congenital abnormalities like Mullerian duct anomalies, uterine anomalies comes under the heading leading to repeated abortions. When we consider *Artava* as a hormone luteal phase defect, *pcod*, *hypothyroidism* and *hyperprolactinemia* are the main factors causing recurrent abortions. *Raja* is synonym of *Artava*, *Raja* is considered as the endometrium so the endometrial abnormalities like polyps and leiomyoma are also responsible for the recurrent pregnancy loss and infertility.

3) *Raktastravajanya*: It means due to hemorrhage. In case of uterine anomalies there is no adequate space for growing fetus which leads to the abortion. In blood coagulopathy disorders if not treated well there is an initiation of the abortion by bleeding per vaginam.

4) *Raktakshayajanya*: In cases of nutritional deficiency there is inadequate supply of nutrition to the fetus causing intrauterine growth

retardation and in severe cases it may results in to the intra uterine fetal demise leads to BOH.

As we all know that Ayurveda is the science of life the treatment of *Sadhvyadhi* is described in it. Along with medicinal treatment, *Pathya apathy* and mode of life is also given for the better results. In case of bad obstetric history preconceptional care also plays an important role in the treatment. In recurrent abortions proper *Sharirshuddhi* of both partners is essential before the conception which is given in our science. By following proper line of treatment better results can be achieved.

CONCLUSION

While treating the patients of bad obstetric history one should go thoroughly examination of patient followed by the proper line of treatment only then we will get the fruitful outcome. When we came across the causes of bad obstetric history we come to know that the integrative approach is helpful rather the individual Ayurvedic or modern approach in treatment.

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