

AN AYURVEDIC CONTRIBUTION IN SAFEMOTHERHOOD AND MATERNAL MORTALITY RATE REDUCTION

***Dr.Sunita Suman**

***Associate Professor, Dept. Of Prasuti Tantra, Faculty of Ayurveda, IMS, BHU, Varanasi-221005, U.P., India.**

ABSTRACT

Maternal mortality rate is defined as death of a woman while being pregnant or within 42 days of termination of pregnancy irrespective of the duration and site of pregnancy from any cause related to or aggravated by the pregnancy or its management but not accidental or incidental causes. World Health Organization (WHO) conceived the idea of ‘Safe motherhood initiative’ at the conference in Nairobi, Kenya in 1987. World wide nearly 810 women die at every day due to pregnancy or child birth related causes. It means that almost every two minutes, there is maternal death. In India MMR noticed 122 per 100,000 live births in 2017.

Causes of maternal mortality are direct like haemorrhage, sepsis, unsafe abortions, hypertensive disorders, eclampsia and obstructed labour and indirect causes are anaemia diabetes, viral hepatitis cardiac disease other chronic and infection diseases.

The total health of mother depends upon the pre-conceptual counselling which helps to decrease the birth defects and allows identification, assessment and possible alternation of risk factors, that may influence maternal and foetal outcome during pregnancy.

In Ayurveda, there is very good and large description about preconceptional counselling, *Garbhini Paricharya* (Antenatal care) and *Sutika Paricharya* (Postnatal care). By adopting both “*masanumasik garbhini paricharya*” and *sutika paricharya* which are helpful to promote the health of mother, prevention of maternal and fetal abnormalities and reduction of foeto-maternal morbidity and mortality to a greater extent.

Key words : Maternal Mortality Rate (MMR), Safemotherhood, W.H.O., Birth defects. Preconceptional counselling, *Garbhini paricharya*, *Sutika paricharya*,

INTRODUCTION

A woman should be protected and safe for happy and healthy life of family. It is unfortunate that so many families are not serious about the health of pregnant woman. Maternal mortality rate is defined as the death of a woman while pregnant or within 42 days of termination of the pregnancy, irrespective of the duration and site of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not accidental or incidental causes¹.

Due to launching of so many programmes by Indian Govt. Maternal mortality rate (MMR) decreases to 122 per 1 lakh live births in 2017, while it was noticed 167 per 1 lakh live birth in 2011-2013 and 130 deaths per 1 lakh live births in 2014-2016. In 2017, the worlds MMR had declined 44% since 1990, but still every day 810 woman die due to pregnancy or child birth related causes in all over the world. It means that one woman dies at every two minutes in world². The main programme which was launched in India is Reproductive Child Health (RCH) programme i.e. RCH Phase I (15th October 1997) and RCH phase II (1st April,2005).

One goal of RCH Programme³ (India) is “For each pregnancy woman should receive at least three ANC (Antenatal care) check-ups, two injections of TT and full course of iron and folic acid supplementation. After delivery ,woman should have at least three post natal check-ups.

- Due to passing of maternal sexually transmitted diseases, the complications like neonatal, blindness, stillbirth or low birth weight etc may occur.
- The pregnant woman are facing so many common problems like night blindness, blurred vision, generalized oedema, excessive fatigue, convulsions without fever, anaemia and vaginal bleeding etc.
- Increased % of low birth weight and neonatal deaths is due to maternal diseases and prenatal factors i.e. maternal malaria, maternal malnutrition, severe anaemia, umbilical cord complications, premature rupture of the membranes, placental abruption, placenta previa, Intrauterine hypoxia, congenital abnormalities smoking and alcohol intake during pregnancy.
- Asphyxia in new-borns is occurring because of obstructed labour and severe APH (Ante-partum haemorrhage).

- Many of newborns have the respiratory distress due to unskilled attendants, lack of antiseptics or aseptic measures and improper surgical procedures are responsible for sepsis in mother, neonatal sepsis and tetanus.
- Some short term or temporary complications such as toxemia of pregnancy, haemorrhage, sepsis and long term complications vesicovaginal or rectovaginal fistula, uterine prolapse, PID (pelvic inflammatory disease) and urinary or fecal incontinence etc. are also faced by women during her antenatal, labour and postnatal period.

Hence, Preconceptional counselling, Antenatal care and Postnatal care are the three major pillars to reduce the maternal and neonatal complications. No one can deny the importance of pre-conceptional counselling, the total health of mother depends upon the pre-conceptional counselling⁴ which helps to decrease the birth defects and allows an identification, assessment and possible alteration of risk factors that may influence maternal and fetal outcome during pregnancy lack of support of family members affect the pregnant state of women.

For prevention of neonatal, maternal morbidity and mortality, the pregnancy screening for so many infections such as TORCH, HIV, HbsAg, culture and sensitivity test for urine and vaginal discharges, and also for chronic diseases, severe anaemia should be done and corrected.

There is an urgent need to formulate strategies and plans at national and international level of at national and international level to promote Ayurvedic system of medicine for reduction of MMR from top to grass root levels. Different authorities of *Ayurveda* indicated specific life style and dietetic regimens for nine months of pregnancy (*Garbhini Paricharya*- Antenatal care) and after delivery (*Sutika paricharya*- Postnatal care) on the basis of requirement of expectorant mother.

Ayurveda has brilliant concept of preconceptional counselling for maternal health and also has lot of suggestions of prevention of maternal and newborn morbidity and mortality. In modern medical science the antenatal care begins after the conception but in *Ayurveda*, it begins from the ideal marriageable age of boys and girls for happy and healthy motherhood. The appropriate age for conception for men is 25 years whereas a female of 16 years is fully matured and able to conceive⁵. Advocacy of marriage in *Atulgotra* (different *gotra*, of woman and of man) is an ayurvedic concept. Marriage in close relations should be avoided.

It has not a scientific reason but some studies proved that it minimises the chances of genetic diseases in progeny.

According to *Acharya Charak*⁶, following factors which are responsible for healthy preogeneity are *Shukra* (sperm) and *artava* (ovum) without any abnormality, *atma* (deeds of previous life) *garbhashya* (healthy uterus) and *kala* (appropriate time for conception).

AIMS AND OBJECTIVES

- To study the preconceptional counselling, *Garbhini paricharya* (Ante-natal care), *Sutika paricharya* (Postnatal care) in detail in light of Ayurveda.
- To promote; protect and maintenance of health of mother and proper growth, development of fetus.
- To prevent the complications during pregnancy, labour and after delivery.
- To remove the anxiety which is associated with delivery and smooth conduction of normal delivery.
- Reduction of maternal morbidity and mortality through Ayurvedic management.

Month wise Specific dietary regimen and therapies (8th & 9th months) for pregnant woman

Month	<i>Charaka</i> ⁷	<i>Sushruta</i> ⁸	<i>Vagbhatta</i> ⁹	Others ¹⁰
1 st Month	Non medicated milk in desired quantity, congenial diet in morning and evening.	Sweet, Cold, liquid diet.	Medicated milk twice in morning and evening for first 12 days <i>ghrita</i> extracted from milk, medicated with <i>shala-parni</i> and <i>palasha</i> water boiled with gold or silver and cooled.	<i>Madhuyashiti</i> , <i>Parushaka</i> , and <i>madhukapushpa</i> with butter and honey followed by sweetened milk.
2 nd month	Milk medicated with <i>madhura</i> drugs.	Sweet, cold and liquid diet	Medicated milk with <i>madhura</i> drugs.	Sweetened milk treated with <i>Kakoli</i>

3 rd month	Milk with honey and <i>ghrita</i> .	Sweet, cold and liquid diet, specially cooled <i>shashti</i> rice with milk.	Milk with honey and <i>ghrita</i> .	<i>Krishara</i>
4 th month	Butter extracted from milk one aksha.	Cooked <i>shashti</i> rice with cured, dainty and pleasant food mixed with milk and butter and meat of wild animals.	Milk with one aksha of butter.	Medicated cooked rice.
5 th month	<i>Ghrita</i> prepared with butter extracted from milk.	Cooked <i>Shashti</i> rice with milk meat of wild animals along with dainty food mixed with milk and <i>ghrita</i> .	<i>Ghrita</i> extracted from milk.	<i>Payasa</i>
6 th month	Medicated <i>Ghrita</i> with <i>madhura</i> group.	<i>Ghrita</i> or ricegruel medicated with <i>Gokshura</i> .	Medicated <i>ghrita</i> with <i>madhura</i> group.	Sweetened cured.
7 th month	Medicated <i>Ghrita</i> with <i>madhura</i> group.	<i>Ghrita</i> medicated with <i>prathak-parnyadi</i> drugs.	Medicated <i>Ghrita</i> with <i>madhura</i> group.	<i>Grita khanda</i>
8 th month	Rice gruel prepared with milk and mixed with <i>ghrita</i> .	<i>Anulomana</i> of <i>vayu</i> , <i>Asthapana vasti</i> (<i>Vasti</i> with decoction of <i>badar</i> mixed with <i>bala</i> , <i>atibala</i> , <i>shatapushpa</i> , <i>Palasha</i> , milk, curd, mastu, oil, salt, <i>madanaphala</i> , honey and <i>ghrita</i> followed by <i>Anuvasana basti</i>	Followed <i>Charaka</i> and <i>Sushruta</i>	<i>Ghrita puraka</i>

		(oil medicated with milk and decoction of drugs of <i>madhura</i> group, unctuous gruels and meat soup of wild animals)		
9 th month	Vaginal tampon with medicated oil.	<i>Anuvasana basti</i> with oil prepared with drugs of <i>madhura</i> group and vaginal tampon of this oil for lubrication of <i>garbhasthana</i> and <i>garbha marga</i> .	<i>Anuvasana basti</i> of <i>madhura</i> group.	Different varieties of cereals.

Benefits of *Garbhini paricharya* (ante-natal care)

- During pregnancy several systems such as *prasake*, *chhardi* (nausea, vomiting) etc occur due to general rasa *kshya* and local rasa *vridhi* which can be compensated with these dietetic regimen.
- Ensure proper lactation
- Ensure smooth labour without any complication
- Establishment of doshas and equilibrium of *rasadi dhatus*.
- Proper evacuation of urine, faeces etc.
- Proper functioning of *Apana Vayu*.
- Establishment of mental wellbeing and compensation of *Bala* and *Varna Kshaya*.
- Ensure good and safe puerperium.

During postnatal period (*sutika kala*) the woman becomes weak or emaciated due to development of foetus and also empty bodied due to unsteadiness or languor of all *dhatus*, *aavi* (labour pains) and excretion of *kleda* (moisture) and blood.

Acharyas had described the *sutika paricharya*¹¹ to attain all the lost things of puerperal and helps to pelvic organs revert back approximately to the pre-pregnant state both

anatomically and physiologically. *Ahara* (Diet)and *Vihara* (normal activities and mode of life) as preventive measures to be taken immediately after delivery.

Specific *sutika paricharya* (Post-natal care) and its benefits

- *Panchkola* drugs have antipyretic, appetizer, utero-tonic, antibacterial, antifungal, analgesic and anabolic properties¹². It should be advised with *ghrita* or hot *geggary* for balancing the *ruksha* and *tikshana* properties of *panchkola*¹³.
- After digestion of olegenous substance rice gruel prepared with drugs of *vidarigandhadigana*¹⁴ and milk is beneficial due to hepato -protective, rejuvenating and tonic, rasayan properties and anabolic action of these drugs.
- Liquid diet with soup of badar, *yava*, kola, *kullatha* are easily assimilable, diuretic and demulient, helpful in convalescence during puerperium. These are diuretics and enhance the excretion of peptones as urea and creatinine in urine^{15,16}.

Use of meat soup is an excellent food source of iron, vitamins, essential amino acids and trace elements. Decoction of *jivaniya*, *brimhaniya*, *madhura* and *vatahara* drugs. *Madhura*, *brimhaniya* drugs are anabolic and helpful to recover maternal system from stress and strain of labour. These drugs are also helpful in galactogenesis and enhance the property of maternal milk.

*Bala taila abhyanga*¹⁷ (massage) helps to reduce the oedema and swelling, increases the blood level histaminase which decreases the gastric acidity, and allergic responses, aids digestion, absorption and assimilation, strengthens lungs, intestine and vital organs for proper functioning¹⁸.

- *Udaraveshtana*¹⁹ – Wrapping of abdomen with big cloth or binder results getting back the uterus, abdominal muscles and pelvic organs to their proper place and also pacify the vitiated *vata*.
- Hot fomentation of yoni helps in relieving pain, edema and also helpful in early healing.
- Hot water bath and rest is essential for maintenance of hygiene which helps to prevent the infections of traumatized genitalia and cross infections to neonate.
- Yoni fumigation²⁰ with *kushtha*, *guggulu*, *Aguru* mixed with *ghrita* helps in prevention of infections and inflammation of genitalia.

MATERIAL AND METHODS

For this proposed article different Ayurvedic classics, modern texts and research papers, studies of WHO, UNICEF and UNFPA, case reports were used for searching relevant matter regarding data of maternal mortality rate, preconceptional counselling, garbhini paricharya, sutika paricharya and their benefits in reduction of maternal mortality rate. The last search was done on 15 June 2020. Keywords that were used are maternal mortality rate, W.H.O., preconceptional counselling, garbhini paricharya, sutika paricharya etc.

DISCUSSION

There is strong need of sustained commitment at government as well as community level. Infra structure and human resources should be developed to improve the present scenario of maternal and child health in India. A balancing role between public and private sectors can help to fill the gap between allopathic and Ayurvedic system.

- Deaths during ante-natal, intra-natal, post natal period are very high due to high risk pregnancies and obstructed labour.
- All the women of child bearing age should be offered pre-conceptional counselling and evaluation of infections and chronic disease.
- Good communication between primary and secondary care provides help in reduction of MMR.
- To educate the pregnant women and her family members about the risk factors.

Pre-conceptional counselling, *garbhini paricharya* (ANC) and *sutika paricharya* (PNC) can help to achieve the set of goals.

Identification of psychological and domestic issues, healthy eating and stopping of smoking, alcohol intake can help to minimize the maternal and neonatal complication¹⁷.

CONCLUSION

Inspire of many efforts from various level for betterment of maternal and fetal well being maximum number of women do not receive basic antenatal and postnatal care. Every pregnant woman should have the rights of quality care. At huge level, national programmes such as anaemia prevention programmes, family welfare programmes, Janani Suraksha Yojna and Vandematram scheme programmes should be adopted to achieve the goal²¹. Every system of health care has its own merits and demerits. Ayurveda has brilliant concept to of

health and disease. There is very large description regarding care of women during her prenatal, postnatal period and also methods for achieving healthy baby. Good communication and proper counselling, education, good environmental factors, well balanced nutritious dietetics regimen and mode of life may be helpful to reduce the pregnancy and postnatal hazards.

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