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Review Article

EXPLORING AYURVEDA'S INSIGHTS ON MATERNAL WELLNESS: A COMPREHENSIVE LITERATURE REVIEW

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ABSTRACT:

The medical aspects of pregnancy, childbirth, and postpartum care are together referred to as maternal health. Certain issues related to maternal health may have answers in Ayurveda. As a result, a study of the literature was done utilizing internet search engines like PubMed and Google Scholar to determine the function of Ayurveda in maternal health. Six of the 70 articles that were found were ultimately chosen. It was noted that there is a dearth of innovative clinical research on this specific topic. The majority of the information in these databases are review papers or theoretical studies. Of these six titles, four (n = 6) articles are concerning maternal anemia, one (n = 6) piece is about pregnancy-related nausea and vomiting, and one (n = 6) item is about growth-related difficulties. This evaluation focused on pregnancy-related problems and associated ayurvedic remedies because labor and postpartum care were not covered in any of the original studies. Insufficient research in this area implies that either not enough is known about the subject, or the results are not being disseminated through scholarly publications. Clinical research in this area is greatly desired because ayurveda regimens and principles may offer some kind of cure for a variety of disorders associated to pregnancy. The health system should promote research on the use of maternal health, particularly in view of the existing rates of maternal morbidity and mortality.

KEYWORDS: Ayurveda, Fetal growth, *Garvini pandu*, Maternal Anemia, Mother well-being, Retardation

INTRODUCTION:

Maternal health refers to the condition of women's health during their pregnancies, births, and postpartum periods. Of these three crucial elements, pregnancy is the cornerstone of the maternity cycle and has a significant impact on the results of the other two: birthing and postpartum care. Furthermore, the maternal cycle consists of five significant phases: conception, antenatal or prenatal, intranatal, postnatal, interconceptional, and postnatal.

In industrialized nations, being a mother is typically a happy and rewarding experience. However, being a mother is often linked to hardship, illness, and even death in underdeveloped nations. Hemorrhage, infection, hypertension, unsafe abortion, and obstructed labor are the main direct causes of maternal morbidity and mortality^[1].

In India, the maternal health condition in India varies greatly between states, as does the distribution of the population between rural and urban areas, the socioeconomic standing and educational attainment of the rich and the poor, and the accessibility of healthcare services^[2-3]. The most effective way to assess a country's maternal health status is to utilize the maternal mortality ratio, or MMR. According to the Indian Sample Registration System, the MMR for 2011–2013 was 167/100,000 live births, while the age group of 20–24 years old accounted for the bulk of deaths. States in India have very different MMRs.

One of the oldest medical traditions in human civilization, Ayurveda, may be able to help address India's maternal health issues and lessen the burden of maternal illness on the general public's health. These methods, which have their roots in the robust theoretical underpinnings of Ayurveda, can provide safe, sensible, and pertinent management of life's most significant stages, including adolescence, pregnancy, childbirth, and postpartum care. Furthermore, it seems that the best corrective action Integrating ayurvedic practices into mainstream maternal health care can reduce the MMR.

Strategies for this Review:

Using PubMed and Google Scholar as our two search engines, the literature was reviewed in two stages. According to the World Health Organization's definition of maternal health, the following key terms were used: "pregnancy," "childbirth," "post-partum care," "maternal health," and "Ayurveda." The period of time covered by the literature study was September through November of 2015. Using the aforementioned key phrases one after another and combining each one with Ayurveda, the literature was searched using the PubMed search engine in the first phase. Using the Google Scholar search engine, a similar search strategy was implemented in the second phase. Six titles were ultimately chosen for the review following the first screening, based on both sites' full text articles.

Studies on Diverse Facets of Maternal Health:

Fifteen titles out of seventy (six from PubMed and four from Google Scholar) papers are deemed pertinent to the topic of Ayurveda and maternal health. Of the fifteen titles, eight deal with the use of Ayurveda during pregnancy, one with birthing, two with postpartum care, and four with general mother health. Six volumes were ultimately chosen for the

evaluation after reviews, case studies, editorials, and commentaries were rejected. All of the articles exclusively discuss issues linked to pregnancy.

Role of Ayurvedic Treatment for Maternal Anemia:

Six research (n = 4) discussed the connection between Ayurveda and maternal anemia. The main focus of these investigations was the effectiveness of several ayurvedic formulations in treating maternal anemia, with a particular focus on iron deficiency anemia. The clinical effectiveness of Dadimadi Ghrita was studied in 35 pregnant subjects with anemia at Dharmartha Ashtang Ayurveda Hospital in Pune. The four constituents of Dadimadi Ghrita are Dadima (*Punica granatum* Linn.), Chitraka (*Plumbago zeylanica*), Shunthi (*Zingiber officinalis* Roscoe) and Ghrita (Cow ghee). Every morning before 8 am, 10 cc of this medication was taken on an empty stomach with lukewarm water. Sixteen participants showed anemia relief of up to 51–75%. Eleven participants displayed up to 26–50%, while eight subjects displayed up to 76–100%^[4]. All of these are present in equal amounts. In order to prepare the Vati^[5], the following ingredients were used: two times for Amalaki Swarasa (extract of *E. officinalis* Gaertn.), one time for Gomutra (cow urine), and one time for Kumari Swarasa (extract of *Aloe barbadensis* miller).

The Vati was prepared by combining Amruta Kwatha (Decoction of *Tinospora cordifolia* Wall. ex Sringee) and Bhavana (trituration) seven times. Notable results were obtained by Group B, which was given Dhatri Lauhavi. Every subjective indicator showed a statistically significant ($P < 0.001$) outcome, including Panduta (pallor) (60%) and Shwasa (dyspnea) (57.25%). Similarly, significant (< 0.05) results were obtained for the other subjective parameters: Shrama (63.54%) for fatigue, Hridrava (55.55%) for palpitations, Aruchi (42.85%) for anorexia, and Pindikodvestan (49.49%) for leg cramps. Group B showed a minor rise in hemoglobin (Hb) concentration, a decrease in total iron binding capacity, and an increase in packed cell volume. However, no significant changes were observed in the other objective parameters. Because of the remarkable improvement in this observation when compared to the other group that received Pandughnivati, the study suggests Dhatri Lauhavi as the best treatment option for anemia due to iron shortage during pregnancy. The therapeutic efficacy of Dhatri Lauhavi was also the subject of two further research. In addition to the drugs described above, several clinical studies on the effectiveness of Punarnavadi Mandura, a hematonic, in treating maternal anemia have been carried out. This paper does not examine the studies since they are primarily concerned with Punarnavadi Mandura and its effect on iron deficiency anemia, which is outside the scope of this evaluation.

Ayurvedic treatment for Nausea and Vomiting during pregnancy:

In a clinical experiment conducted at the Prasuti tantra Out Patient Department of Sir Sunderlal Hospital, BHU, Varanasi, 98 expecting mothers were reported to benefit clinically from Garbhpal Ras in treating pregnancy-induced nausea and vomiting. Garbhpal Ras is composed of "Vang", "Hingula", "Nag", and "Lohbhasma". Dalchini (*Zingiber officinale*),

Marich (*Piper nigrum*), Ela (*Elettaria cardamomum*), Tejpatra (*Cinnamomum tamala*), Krishna jeerak (*Carum bulbocastanum*), Chavya (*Piper retrofractum*), Devdaru (*Cedrus deodara*), and Draksha (*Vitis vinifera*) are some of the herbs that are present in "Garbhpal Ras." Each component was triturated in "Vishnukranta" extract, with the exception of "Lohbhasma," which was half the quantity of the other ingredients^[6]. Of the 94 trial participants, two groups were identified. In the first group, 55 women received 120 mg of Garbhpal Ras twice a day in addition to folic acid, whereas the control group of 39 pregnant women only received folic acid. At the time of the study, 68.23% (n = 65) of the pregnant women in the trial group and 70.23% (n = 29) of the pregnant women in the control group reported feeling unwell. Given that the control group did not receive Garbhpal Ras, expectant mothers who received showed notable changes at the time of the second follow-up, and the symptoms resolved entirely after three months of pregnancy on their own. 3.62% (n = 55) of the trial group's women reported nausea in the third follow-up, compared to 15.38% (n = 39) of the control group. Similar to this, at the beginning of the study, 58.97% (n = 39) and 60% (n = 55) of the women in the control group and the trial group, respectively, experienced vomiting. With 7.96% (n = 39) of the control group experiencing severe vomiting, compared to 1.82% (n = 55) in the experimental group, the control group experienced more severe symptoms. The trial group showed greater alleviation from vomiting during follow-up; none of the women in the Garbhpal Ras group experienced vomiting until the third follow-up. In the trial group, there was a statistically significant difference between the third follow-up and the first observation.

Role of Ayurveda in Fetal Growth:

Sixty-five second- and third-trimester pregnant women participated in a clinical study conducted at the Institute for Post Graduate Teaching and Research in Ayurveda, Jamnagar, prenatal clinic unit. The sixty participants were split into two groups and given powders of AtiBala, Amalaki, and Godanthi in equal amounts. For a duration of 12 weeks, Group 1 was administered 1.5 g of powdered Amalaki, Godanthi, and Grabhapala Rasa used lukewarm water two times a day^[7]. Group 2 was given 9 g of powdered AtiBala (*Abutilon indicum*) daily in three equally divided doses with lukewarm water. The study found that in cases of pregnancy-related growth retardation, AtiBala powder performed better than Amalaki, Godanthi, and Grabhapala Rasa powders. For every subjective parameter, including The results showed statistical significance for biparietal diameter ($P < 0.001$), head circumference/abdominal circumference (AC) ($P < 0.01$), femoral length/AC ($P < 0.001$), fetal weight ($P < 0.01$), amniotic fluid volume ($P < 0.02$), maternal weight ($P < 0.02$), and maternal AC ($P < 0.002$).

Analyzation of the appropriate studies mention of Ayurveda in Maternal Health as a criteria:

The traditional medical philosophy of Ayurveda takes a unique tack when explaining the ideas of maternal health. It provides a unique method for handling ailments related to

being pregnant, giving birth, and caring for the postpartum period. It takes a unique stance on conception, prenatal care, embryology, managing pregnancy-related issues, managing abortions, achieving a normal delivery, and postpartum care. Similar to this, Ayurveda offers unique methods for handling contaminated breast milk and caring for a child after consuming contaminated milk. The term "supraja" refers to the idea of eugenics in Ayurveda, and there are set rules for it. One of the three humors mentioned in the traditional Ayurvedic treatises, Vata dosha, is heavily focused upon in Ayurveda's approach to managing pregnancy. Ayurvedic principles and therapies are employed to balance the Vata dosha well in advance of conception, resulting in a successful pregnancy. Ayurveda places a strong focus on Vata Anulomana, or making sure that Vata flows unhindered and in the correct direction, during the pregnancy. In addition, it has been noted that women receiving therapy aimed at managing Vata vitiation experience remarkably easier pregnancies and births in comparison to those who do not receive such therapies. Additionally, Ayurveda lists a number of illnesses that are specific to pregnancy and are caused by the condition of being pregnant. These are known as "Garbhopadravas," or pregnancy-related problems, and they include ailments including diarrhea, edema, anemia, vomiting, nausea, and anorexia. One of the advocates of Ayurveda, Acharya Kashyap, believes that it is crucial to properly regulate garbhopadravas for both the mother and the kid^[8]. One of the most frequent side effects of pregnancy is anemia, which causes 20% of mortality in developing nations either directly or indirectly^[9]. Pregnancy-related anemia is known in Ayurveda as Garbhini pandu and is mostly caused by vitiation of One of the seven tissues that Ayurveda mentions is Rasa Dhatu. According to Ayurveda, Rasa Dhatu's responsibilities during her pregnancy are three times greater than those of an ordinary individual. It takes on the role of providing sustenance for the fetus, the breast, and the expectant mother. Pregnant women who experience stress related to Rasa Dhatu are more susceptible to developing Garbhini pandu.

Another hematonic that was studied and shown to be highly efficient in lowering anemia was dhatri Lauhavati. It is made up of Dhatu poshana (tissue nourishment) and Lauha Bhasma, an iron supplement with deepana (stomachic) properties that promote healthy metabolism. Amruta (*T. cordifolia* Wall. ex Srinige.) and amalaki (*E. officinalis* Gaertn.) enhance iron absorption and aid in tissue nourishing. Yastimadhu (*G. glabra*) possesses the hemostatic and coagulative property known as Shonitasthapana. All of the substances work together to cure anemia by improving blood production, regulating metabolism, and absorbing iron. Apart from the medications previously stated, Punarnavadi Mandura, which has been extensively studied for its hematonic properties, is currently used in India as a community-based supplement to the National Rural Health Mission. It is currently freely accessible to all expectant mothers and is included in the medication kit for community health volunteers who are Accredited Social Health Activists.

During pregnancy, vomiting, fatigue and nausea are the most prevalent symptoms that 65–90% of women experience. When it comes to pregnancy-induced nausea and vomiting, Ayurvedic formulas might be helpful. Because of its active components, Garbhpal Ras significantly lessens emesis during pregnancy^[10]. Ela (E. cardamomum), Dhanyak (C. sativum), and Shunthi (Z. officinale) are the primary substances that cause this effect. It is commonly known that Shunthi helps reduce emesis in pregnant women. Garbhpal Ras's antiemetic action is primarily due to the same effects of Dhanyak and Ela. At least 60% of the 4 million newborn fatalities that occur worldwide and low birth weight babies are caused by growth retardation during pregnancy, also known as intrauterine growth retardation. Growth retardation during pregnancy may be addressed by some Ayurvedic medicines that possess the qualities of Garbha Vruddhikara Prabhava and Garbha Sthapaka. AtiBala (A. indicum) is one such medication that is widely recognized for its ability to nourish and enhance strength in expectant mothers. Additionally, it possesses fetal growth-promoting and rasayana (rejuvenative) qualities, which inevitably aid in the healthy the fetus's growth during pregnancy^[9].

CONCLUSION:

The study of life science, Ayurveda, offers a variety of therapeutic regimens that may be more effective in treating issues related to maternal health. This article outlines several of the therapeutic substances that can provide a better answer to problems associated to pregnancy. This study's main drawback is that it was unable to investigate the therapeutic and theoretical applications of Ayurveda in relation to two other crucial aspects of maternal health: childbirth and postpartum care. Therefore, research in these two crucial areas of maternal health is required to identify workable answers for issues pertaining to them. Additionally, Ayurveda offers a variety of hematinics, or anti-anemic medications, that are useful in treating insufficient iron anemia in the womb. Currently, Punarnavadi Mandura is marketed as the recommended treatment for treating maternal anemia in the community and is included in the ASHA drug kit. Drugs for maternal health issues have been the subject of numerous trials; these studies should be standardized and applied to solve the significant public health issues facing the community. The absence of research publications in this clinical area could mean that there isn't much research being done in this field or that the findings aren't being appropriately shared with the scientific community, in which case action has to be made. Additionally, the nation's premier Ayurvedic institutions play a crucial role in this regard.

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