South Asian consensus statement on women's health and Ramadan

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ABSTRACT

Fasting during Ramadan, the holy month of Islam, is mandatory for all healthy adult Muslims. It is estimated that there are 1.1-1.5 billion Muslims worldwide, comprising 18-25% of the world population. About 62% of the world's Muslim population resides in Asia. Women comprise approximately 50% of this population. There is great religious fervor and enthusiasm in the majority of Muslims the world over for observing the religious fasting. Many of the Muslim women perhaps due to the family and societal pressures or lack of proper information hesitate and fail to avail themselves of the generous provisions of temporary or permanent exemptions from fasting available in Islam. It is therefore important that medical professionals as well as the general population be aware of potential risks that may be associated with fasting during Ramadan. This familiarity and knowledge is as important in South Asia and the Middle East as it is in Europe, North America, New Zealand, and Australia. There has not yet been any statement of consensus regarding women's health issues during Ramadan, namely menstruation, sexual obligations of married life, pregnancy, and lactation. This document aims to put forward some of the general guidelines for these issues especially for the South Asian Muslim women.

Key words: Lactation, menstruation, pregnancy, Ramadan, women's health

Introduction

Fasting of Ramadan is one of the five pillars of Islam. During Ramadan, able-bodied Muslims abstain from food, fluids, smoking, and taking oral medications between the hours of sunrise and sunset, and usually eat a large meal after sunset and a lighter meal before sunrise.[1] Ramadan is observed by over 400 million of Muslims spread across the globe; and living under various geographical, climatic, social, cultural, and economic conditions.[2] Fasting the whole month of Ramadan is obligatory for all healthy adults and adolescents. Yet Islam grants temporary or permanent exemption from fasting to those at extremes of age, the sick and ailing, the wayfarer and traveler, and the insane. It further grants similar additional exemptions to the women folk during their periods of menstruation, pregnancy, and lactation. Despite that, many pregnant Muslim women fast, against the standard medical advice. The length of fasting time varies with the geographical position of the country and the season in which the month of Ramadan falls. Therefore, the length of the fast may vary from 10 to 19 h a day. The practices and the food behaviors of the populations are not similar during this month of fasting by comparison to the remainder of the year. These modifications are accompanied by changes of the rhythm of life and disturbances of the cycle of sleep.

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Modification of meal frequency and eating patterns during Ramadan may affect different aspects of human health.[1]

Women's Health Issues

Apart from health issues of universal concern in relation to Ramadan fasting, there are some issues pertaining exclusively to women which need to be addressed. These include the following:

1. Menstruation
2. Sexual obligations of married life
3. Pregnancy
4. Lactation/breast-feeding

Sexual Relations and Menstruation

Islamic law is also very clear on the two areas of sexual relations and menstruation during the month of Ramadan. Fasting Muslim women must abstain from sexual relationships from dawn to dusk for all the days of the month of Ramadan. Muslim women are exempt from fasting during the period of menstruation and up to 40 days following childbirth. However, they are expected to make up the missed fasting days before the following Ramadan. To avoid this, many Muslim women use oral contraceptives to postpone their menstrual cycle as they find it more difficult to fast alone at a later time to make up the missed days.[3]

Pregnancy and Ramadan

Pregnancy is a state of increased insulin resistance and insulin secretion and of reduced hepatic insulin extraction. Fasting glucose concentrations are lower but postprandial glucose and insulin levels substantially higher in healthy pregnant women than those who are not pregnant. Elevated blood glucose and A1C levels in pregnancy are associated with increased risk for major congenital malformations. Fasting during pregnancy would be expected to carry a high risk of morbidity and mortality to the fetus and mother although controversy exists. Pre-Ramadan evaluation of their medical condition is essential. This includes preconception care with emphasis on achieving near-normal blood glucose and A1C values, counseling about maternal and fetal complications associated with poor glycemic control, and education focussed on self-management skills.[4]

Pregnant and lactating women should be reminded to utilize the concessions available to them and not to fast especially if doing so puts their own health or the health of their offspring in danger. There are reports which list some undesirable and harmful effects of fasting on the mother, fetus and the infant, whereas others do not report any such significant adverse effects.[5-7] Adverse and undesirable effects reported include an increased risk of hyperemesis gravidarum during the early months of pregnancy,[8] increased prevalence of urinary tract infections perhaps due to decreased fluid intake during fasting days,[9] reduction in fetal breathing movements perhaps due to the prevailing relatively low levels of maternal blood glucose,[10] fetal compromise as indicated by a reduction in the fetal biophysical profiles,[11] and elevations in the maternal cortisol levels.[12]

Exposure to fasting before birth is associated with poorer general health and a higher incidence of sickness at a later age. Placental growth slows but efficiency is increased so that fetal growth is sustained, albeit with a reduced reserve capacity. The lifestyle changes associated with Ramadan further slow placental growth. Ramadan may influence placental growth through dietary changes other than day-time fasting. Changes in placental growth during Ramadan could be associated with altered fetal programming, and may therefore have long-term implications for the health of the next generation.[13] It also increases a person's chances of developing symptoms that are indicatory for serious health problems such as coronary heart disease and type 2 diabetes and, among older people who had been exposed during certain stages of gestation, may lead to anemia. Younger people who had been exposed on average have a higher pulse pressure. Depending on the moment of exposure, the exposed on average are a bit smaller in body size and weigh less.

The composition and amount of food is very likely to make a difference for the extent to which the fetus is affected. The more hypoglycemia and a calorie deficiency are avoided, the smaller the effects will arguably be.[14]

The ruling for patients with pregnancy is that they are prohibited from fasting to prevent harming themselves based on the certainty or the predominance of probability that harm will occur to these patients.

However, some pregnant women insist on fasting despite repeated warnings regarding possible harm to the fetus. In such a situation, intensive education, possibly involving a religious educator, may prove to be of some benefit. There can be certain suggestions for them to avoid adverse outcomes:

- Do intermittent fasting.
- Always be ready to break the fast on appearance of warning symptoms (prior counseling should include this).
- If determined to fast, then logical changes in diet such as plenty of complex carbohydrates in saher (which

will provide calories for longer duration) and simple carbohydrates at iftar along with adequate nutritional planning according to the stage of pregnancy.

Breastfeeding and Ramadan

As in pregnancy, there is no clear mention of exemption in the Quran for breastfeeding women from fasting Ramadan. Based on the Quran, it is clear that Muslim women who are breastfeeding during postpartum are exempt from fasting during this period, as in menstruation.[15] Despite this clear exemption, some Muslim women may elect to fast during Ramadan while breastfeeding.

There is a lack of knowledge about the actual effects of fasting while breastfeeding on the mother–infant relationship and consequently the infant's health. A study by Ertem *et al*[16] found that 22% of breastfeeding mothers perceived a decrease in their breast milk production and 23% reported increasing the amount of infant supplements during Ramadan fasting.

It is well established that breastfeeding of infants is associated with their better biological, psychological and intellectual development. The additional metabolic stress of Ramadan fasting in pregnancy and during lactation has the potential to cause retardation of foetal and neonatal growth and development, respectively. In Saudi Arabia, the ratio of low-birth weight babies born during the festival months of Ramadan and Hajj was significantly higher than in the non-festival months.[17] However, a study conducted in the UAE concluded that there was no significant effect of Ramadan fasting on breast milk quality and composition in nursing mothers.[18]

The practice of fasting during Ramadan by mothers of infants and young children should not be viewed solely from the perspective of feeding and nutrition. Research states that fasting causes physiological changes such as "sleepiness, lack of concentration, weakness, exaggerated responsiveness, irritability, nervousness, and aggressiveness."[19] The development of the infant depends most on interactions and relationships with his/her mother. The effect of such changes on the breastfeeding mother, mother–child interactions, and the production of breast milk needs to be investigated. Thus, it is imperative that child health care providers find religious and culturally appropriate methods to combat the possible unfavorable effects of intermittent fasting for infants and children.

Lactating mothers who are determined to fast need to be counseled enough prior to fast regarding adequate nutrition and possible problems so that they take up fast initially on trial basis and if it works smoothly and does not result in significant decrease in milk secretion she can be permitted to fast cautiously under regular supervision of a pediatrician. However, they should be discouraged to fast if child is less than 6 months old and exclusively breast fed.

Conclusions

Traditionally, Muslim Women are not ordained with difficult, heinous, or hazardous occupations outside their household limit and all such responsibilities rested with their male counterparts. This was based on the belief that men and women have complimentary roles and obligations in society, which are commensurate with their natural physical, psychological, and social inclinations and differences. Presently, women while still retaining most of their traditional householder's role have ventured beyond it and have sought employment and careers outside the house. This taken as a whole has not only increased their work load and responsibilities but also has put them under tremendous tension, stress, and strain. Many of the Muslim women perhaps due to the family and societal pressures or lack of proper information hesitate and fail to avail themselves of the generous provisions of temporary or permanent exemptions from fasting available in Islam, the religion of the Muslims.

The religion of Islam values life. Although fasting during Ramadan is one of the obligations of the religion, flexibility exists. Differences of perception and practice exist among Muslim women of different ethnic groups and among Muslim patients in general. There is a need for health professionals to have standard guidelines regarding health and fasting during Ramadan in the context of such diversity. Many of the Muslims who undertake Ramadan fasting might be requiring daily medication for their ailments and they might omit these during fasting in the day time. These persons should be offered alternative drug regimes like once daily formulations or night time medications where ever feasible.[20] All in all, careful management of fasting during pregnancy may reduce problems, but it is unlikely that it reduces them to negligible levels. For women who insist to fast, it is imperative that knowledge is assembled and a consensus is reached on the conditions under which a woman can keep on fasting. It should become clear which consumption patterns are desirable and which ones are not. Also, the women need to be monitored well on a number of variables on which physicians should get consensus.[14]

Practical Suggestions

1. Suitable working hour schedule adjustments for those

ladies who are engaged in employment/careers outside their homes.
2. Attention to Vitamin D needs.
3. Remind deserving women to make use of the generously available "exemption from fast" provisions for the very old, sick, pregnant, and lactating women.
4. In religious matters, individuals should be at liberty to discuss and decide how best they want to discharge their religious obligations without compromising their health, safety, and well-being.[21,22]
5. Counseling should be individualized.
6. Remind those fasting in Ramadan of the Holy Prophet Mohammed's saying, "No one will be allowed to move from his position on the day of judgment until he has been asked how he spent his life, how he used his knowledge, how he earned and spent his money and in what pursuits he used his health."

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