EDITORIAL

Islam and the cardiovascular patient – pragmatism in practice

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Muslims worldwide represent a diverse and heterogeneous population varying widely in terms of geographical distribution, language, lifestyle, habits, customs, tradition, dietary habits and, above all, socio-economic status, which has a major influence on all other factors.[1]

The heart is extensively described in multiple Qur'anic verses and prophetic traditions as both an organ of psyche, intelligence and emotion, as well as an important organ that can be harmed by several factors.[2] The prophet Muhammad, Peace Be Upon Him (PBUH), stated: "Beware! There is a piece of flesh in the body if it remains healthy the whole body becomes healthy, and if it is diseased, the whole body becomes diseased. Beware, it is the heart".[3] This tradition holds true if taken either literally or spiritually.

Fasting Ramadan and performing Hajj (Pilgrim) may pose problems to patients with cardiovascular disease, hence, it is important for the physician to have some sort of guidelines to help him in decision making when consulted about these matters.

Fasting Ramadan

Despite the fact that fasting in Ramadan is practised by more than a billion Muslims worldwide, there is yet no clear scientific consensus on its effects on cardiovascular disease.

During this month, participating Muslims refrain from eating, drinking, smoking and sex from dawn until sunset. As the month of Ramadan follows the lunar calendar, the fasting month is brought forward by about 10 days each year. For the next decade Ramadan will fall in the summer in the northern hemisphere. As daylight hours vary considerably between summer and winter months in non-equatorial countries, the length of the fast (which lasts from dawn to sunset) increases in the summer (to about 16–20 hours).[4] Moreover, the already diverse dietary habits undergo further significant alteration during Ramadan fasting among the global Muslim population.

Although the Qur'an exempts sick people from the duty of fasting, a significant number of patients with heart disease insist on fasting despite the physician's medical advice. Physicians do not always know how to advise such patients regarding fasting during Ramadan.

A few studies have been published on the effects of fasting in cardiac patients.[5-7] Fasting during the month of Ramadan does not increase the burden of acute cardiac illness. Temizhan *et al*.[5] compared the incidence of acute heart disease events (acute myocardial infarction [AMI] and unstable angina) in Ramadan to one month before and after Ramadan in 1,655 patients, treated between the years 1991 and 1997 at their institution. The investigators reported no significant differences in the incidence of AMI and angina in Ramadan when compared with the other two periods, however, their study had many limitations, including the fact that it was not a population-based study, and only included a small number of patients.

What about patients with heart failure? A retrospective analysis of clinical data of 2,160 Qatari patients hospitalised with heart failure during a period of 10 years (January 1991 through December 2001) showed that there was no significant difference in the number of hospitalisations for heart failure during Ramadan when compared with the non-fasting months.[6]

A recent review of Medline English literature published between January 1980 and September 2012 revealed that the effects of fasting during Ramadan on stable patients with cardiac disease are minimal, and that patients with stable cardiac illness can fast during Ramadan, provided they comply with the recommended dietary and medication regimens.[1]

The conclusions from these studies cannot be extrapolated to patients with worse functional classes or those who are unstable.[1,7] Of note, most of these studies were performed in the Middle East and Gulf area, and, therefore, such conclusions may not be extrapolated to patients living in North European countries, where the duration of daily fasting could be 2–3 hours longer.

Fasting does not apply to all Muslims. If it is considered to be detrimental to an individual's health then the Qur'an states fasting should be avoided.

"….Allah intends every facility for you; He does not want to put you to difficulties."[8] It is entirely left to the discretion of the treating physician to decide whether his patient is allowed to fast or not.

In their review, Salim *et al.*[1] found that cardiovascular risk factors showed a trend towards improvement in patients fasting during Ramadan with stable cardiac disease, metabolic syndrome, dyslipidaemia and systemic hypertension, provided that unhealthy dietary patterns are avoided. The lipid profile of diabetic patients, however, deteriorated significantly during Ramadan fasting.

The improvement in plasma lipid levels, especially 30% to 40% improvement in high-density lipoprotein (HDL) levels, as reported in some studies, appear promising and should be explored further to gain insight into management of low-HDL dyslipidaemia.[1] Diabetic patients should be carefully monitored during Ramadan fasting.[4]

Cardiac patient and Hajj

Hajj, the pilgrimage to Mecca, Saudi Arabia, is the largest and most long-standing annual mass gathering event on earth. Approximately two to three million Muslims from over 160 countries travel to Saudi Arabia each year for Hajj. These pilgrims are typically older adults with a spectrum of comorbid conditions and of various ethnicities. Approximately 25,000 British pilgrims perform Hajj each year. Performance of Hajj and its rites is physically very demanding. Extreme physical stressors such as heat, sun exposure, thirst, crowding, traffic congestions, steep inclines and rough ground underfoot increase the risk of communicable diseases, particularly respiratory infections, in those with certain pre-existing health conditions such as heart disease, renal disease, chronic lung disease and other conditions including diabetes mellitus.[9]

Cardiac patients planning for the Hajj should consult their doctor as Hajj is arduous even for healthy adults – for those with pre-existing cardiac disease, the physical stress can easily precipitate ischaemia. The onus is on the pilgrim to avoid the Hajj if their cardiac status is precarious, and clinicians must encourage this preventative stance. Cardiac patients planning for the Hajj should consult with their doctors before the journey; ensure sufficient supply of, and compliance with, medications. They should avoid crowds, perform some rituals by proxy, and report to the closest health centre for any symptom indicating cardiac decompensation.[10]

Cardiovascular risk factors

Although not outwardly mentioned in the Qur'an and prophetic traditions, the lifestyle that the Qur'an encourages drastically decreases the chances of individuals developing cardiovascular diseases via the following ways: engaging in spiritual activities, moderate eating, physical labour, and abstention from forbidden foods and drinks.[11] Overeating has been strongly condemned and prohibited in the Qur'an. "Eat and drink, but be not excessive. Indeed, He does not like those who commit excess."[12]

Furthermore, the prophet Muhammad (PBUH) encouraged the consumption of foods, such as olive oil and whole-grain bread: "Eat olive oil and anoint it upon your bodies since it is of the blessed tree",[13] and we currently know that olive oil consumption and Mediterranean diet is associated with a decreased risk of cardiovascular mortality, and overall mortality.[14]

Though we do not find much in the Qur'an about specific exercise recommendation, Islamic teachings encourage Muslims to teach their children swimming, archery and horse riding.

The Islamic prayer is performed at least five times a day and consists of a series of movements entailing standing, prostrating and sitting. When performing prayer, the Qur'an discourages lazily performing prayer as performed by the Hypocrites;[2] thus, a lethargic and careless approach to prayer neither obtains any spiritual nor physical benefit to the state of health.

The physical movements during prayer with repetitive standing-sitting actions throughout the day also help prevent deep vein thrombi.

The lifestyle prescribed by these Islamic traditions promotes longevity of life, prevention of cardiovascular diseases, and discourages risk factors associated with such diseases.

In addition, the Qur'an states: "Truly it is in the remembrance of God that the hearts find peace"[15]

Conflict of interest

None declared.

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