

Does ramadan modify the circadian patterns?

During the month of Ramadan, adult Muslims abstain from drinking and eating daily between sunrise and sunset. Because this is Muslim lunar calendar, the timing of this month of fast changes each year and the duration of restricted food and beverage intake can vary from between 12 and 16 h. This change of meal schedule is accompanied with changes in sleep habits, such as delayed and shortened sleep periods, which may affect endocrine and neuroendocrine circadian patterns. Several cardiovascular parameters (i.e., heart rate, blood pressure, vascular tone, and coagulation-fibrinolysis) show circadian pattern. Several studies reported that autonomic activity and melatonin rhythmicity may be responsible for circadian patterns of cardiovascular parameters.^[1-3] Changes of sleep habit in Ramadan

affects autonomic activity and melatonin rhythmicity. The other negative effects may be that, during fasting patients with cardiovascular disease cannot consume medications, such as anti-ischemic, anti-platelet, anti-hypertensive drugs, and drugs of heart failure on time. Some patients may get admitted to the hospital with cardiovascular symptoms owing to failure of therapy.

However, some studies reported that Ramadan fasting does not increase acute coronary syndrome. The present study revealed increased acute myocardial infarction rate in fasting subjects. In addition, it first showed circadian presentation of these patients. This important finding supports Ramadan fast-

ing, namely, changes of food intake and sleep habit, affects the circadian cardiovascular patterns owing to changes in autonomic activity and melatonin rhythmicity.

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