

side-to-side type of anastomosis, converting it to end-to-side type, it can be said that the change in the early patency rates originates from the easy applicability of this side-to-side type of anastomosis technique. On the other hand, after completing the anastomosis, if there was thrill of low amplitude a venotomy was carried out on the distal part and a coronary dilator of proper calibration or an embolectomy catheter of 3 Fr. were inserted through. It was irrigated then with heparinized saline solution. The patency of AVF is affected adversely by the venous hypertension.<sup>4,5</sup> The primary reason of this venous hypertension is mostly the stenosis occurred due to previous venous interventions. Therefore, in the present study, it was avoided to use localizations intervened previously via central or peripheral venous catheters. The congenital and acquired arteriovenous fistulas usually do not increase cardiac output; however, sometimes heart failure of high cardiac output may be seen. The closer to the heart AVF is located, the more and earlier are the complications. On the other hand, autogenous grafts should be preferred, as synthetic grafts have a higher probability of infection in early period. Thus, an autogenous source via comfortable surgical procedure with a single anastomosis is the best option with a lower cost. This comfort shows itself via easy applicability of bleeding control after hemodialysis and a very low probability of infection.<sup>6</sup> We prefer Brescia-Cimino type AVF operation routinely as it does not necessitate synthetic grafts, is localized far away from the heart and fits, from the periphery to the center principle. In order to avoid congestive heart failure or aneurysm complications, the arteriotomy should be kept shorter than 5 mm.<sup>7</sup> Edema distal to AVF was not observed in any of our cases. It is likely that ligation of the distal vein with Nr.<sup>1</sup> silk at 2 to 3 mm in diameter during the fistula procedure at the brachial level minimized distal edema and aneurysm formation. Nevertheless, it is recommended to ligate the deep branch of the median antecubital vein to prevent edema whenever side-to-side anastomosis between artery and vein at brachial level is preferred.<sup>8</sup>

In conclusion, in the present study, functional anastomosis was obtained via Brescia-Cimino type distal AVF operation without using a synthetic graft material and additional surgical intervention at the femoral artery level.

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## Effects of Ramadan fasting on cardiovascular diseases

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The present paper pooled all the available data on cardiovascular diseases and Ramadan fasting. Bibliographic data have generally shown that Ramadan fasting did not impair the health of patients with a cardiovascular disease when they were monitored. Few reports have demonstrated the impact of Ramadan fasting on cardiovascular diseases but still, it is not enough to establish a consensus on Ramadan and cardiovascular diseases. The changes in meal and activity schedules during Ramadan, induced chronobiological and metabolic modifications on healthy volunteers. These changes could have repercussions on chronic diseases. The aim of this article was to analyze all the available bibliographic data on cardiovascular diseases and Ramadan fasting. Little is known regarding the clinical implications associated with the observance of Ramadan fast in the management of patients with cardiovascular diseases such as hypertension and stroke. The comparison of hospital admission frequency, before and during Ramadan, of 2337 patients showed a slight decrease of hospital admissions for hypertension and angina. No difference was seen for cerebrovascular diseases, heart failure or acute myocardial infarctus.<sup>1</sup> These

observations were confirmed by a retrospective study that was carried out between 1991 and 1997 to evaluate the effect of Ramadan fasting on patients with coronary heart disease. The results showed that the incidence of acute coronary heart disease events did not increase in Ramadan.<sup>2</sup> The attitude of patients with hypertension concerning fasting during Ramadan is strongly influenced by religious convictions, as only 1.8% of the patients accepted not to fast following clinicians advice. In fasting hypertensive patients, headaches, illness and dizziness were reported and these symptoms are related to the usual effects of fasting. Moreover, an improvement of hypertensive patient's general state of health was observed during Ramadan. It is well known that blood pressure (BP) changes according to physical activity and to sleep and wake cycle. This circadian variation in BP must be taken in consideration when evaluating the effect of fasting on this variable. A 24-hour BP recording showed that its circadian rhythm did not change significantly during Ramadan in healthy volunteers.<sup>3</sup> A slight increase of mean diastolic BP has been observed in healthy volunteers after the fasting period, the rate of this low difference was in the normal range.<sup>4</sup> However, the reduced fluid intake and the disturbance in fluid balance may influence the BP. A decrease of systolic and diastolic BP during Ramadan was observed in healthy subjects.<sup>5</sup> In hypertensive subjects, a slight decrease of BP was found.<sup>6</sup> Moreover, a one-hour shift was reported in hypertensive patients BP. The mean BP was similar before and during Ramadan in treated hypertensive patients with continuous medication.<sup>7</sup> Even if there are some slight changes in BP, it is important to take care of each patient during this religious month. A circadian variation was demonstrated for the occurrence of cerebral infarct in normal conditions, with a high incidence in the morning. A study on 815 patients with stroke showed a diurnal variation of cerebral infarct incidence in Ramadan similar to the month prior to Ramadan.<sup>8</sup> However, a significant difference was seen in the diurnal variation of intracerebral hemorrhage. During the month of Ramadan, the incidence was lower in the afternoon and higher in the evening. Under normal conditions, it was lower at night and higher at noon. Waking up for a meal before dawn (sohor) did not affect the circadian rhythm of intracerebral infarct incidence and the chronobiological change during Ramadan did not have any effect on cerebral infarct occurrence.<sup>8</sup> In another retrospective study, stroke incidence did not vary during Ramadan and no variation was observed according to sex or age.<sup>9</sup> The fasting in the month of Ramadan did not seem to affect the cardiac risk factors negatively. Patients with stable cardiac diseases such as congestive heart disease, valvular heart disease and cardiac arrhythmia, could fast safely without any significant detrimental effect. No

significant changes occurred in any of the hematological or biochemical standard (urea, creatinine, cholesterol, triglycerides, LDL, HDL, blood sugar, uric acid) of cardiac patients during Ramadan.<sup>10</sup>

Ramadan fasting did not have any harmful effect in hypertensive and cardiac stable patients. However, most of the studies carried out concerning Ramadan fasting and cardiovascular diseases were epidemiological and retrospective studies and only few controlled clinical assays were carried out. Patients with any cardiovascular disease should, prior to Ramadan, get the advice of their physicians whether they can fast or not. If a patient were allowed to fast, the physician would then suggest a treatment schedule adapted to Ramadan. This new schedule should be started before the beginning of Ramadan.

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