planned vaginal delivery group.5 A comparative study was carried out by Gifford et al6 and found a successful vaginal delivery in 74% of patients. This was comparative to our study, where the successful vaginal delivery rate was 72.3%. Our observation shows that the increase in maternal age might have adverse influence in successful vaginal breech delivery, however the association in our study failed to reach a statistical significance. Many obstetrician consider parity as an important criterion for selection of parturient to deliver vaginally, in our study, grand multipara (p>0.5) had a significant higher successful rate than nullipara group. The increase in maternal parity was a positive influence in successful vaginal delivery. This could be explained by the fact that, the history of previous successful vaginal delivery might affect the obstetrician decision regarding the choice of delivery. The pelvis of multipara has been already tested by the previous vaginal deliveries. Kayam et al<sup>7</sup> his study did not show any increase in maternal or neonatal morbidity rate attributable to vaginal delivery. Iron et als found significantly lower maternal complication in planned vaginal delivery than elective CS and there was no differences in neonatal morbidity between the planned vaginal the elective and Thropo-Beesteon et al,4 had a large retrospective study on 3447 singleton breech term fetus and concluded that good neonatal outcome with elective CS group than vaginal delivery. This study corresponds to our result on neonatal morbidity; it can be explained that the important issue to be consider when planning vaginal delivery includes careful selection of patient, obstetrical experience and judgment of infrapartum attendant. Although the recommendation now to do elective CS for flexed or complete breech singleton. We suggest that a trial of vaginal breech delivery is more likely to be successful if both mother and baby are of normal proportion with presentation either frank or complete and clinically adequate pelvis with no fetopelvic disproportion, the presence of an experience team of obstetrician, anesthetist and pediatrician in labor room may be more important than the planned mode of delivery.

A trial of vaginal delivery in carefully selected patients with breech presentation at term might be safe procedure that was successfully completed in almost 72.3% of cases in our experience. In our retrospective study we found that, low maternal parity and increase maternal age have a negative influence on maternal progress of labor.

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## Arteriovenous fistulas for hemodialysis. *Patency rates and complications*

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n the last 20 years, a rapid increase in the ■ number of hemodialysis patients is seen.¹ This was constituted by the improvement causing a longer life expectancy in the chronic renal failure cases. For this reason, longer-lasting vascular access interventions are needed. Brescia-Cimino type distal interventions are used as the first choice in patients undergoing arteriovenous fistula (AVF) operations. In cases of thrombosis of these fistulas, more proximal AVF's are performed. If a patient's chances of performing autogenous AVF are consumed, synthetic materials may be used. In the hemodialysis-dependent patients, Brescia-Cimino type AVF's have been considered to be the most convenient procedure from 1966 when it was performed for the first time.<sup>1</sup> Due to repeated venous interventions, it is sometimes difficult to find a proper vein to form an AVF although a proper artery can be found easier. Internal or external shunting may be necessary. However, the probability of facing with significant complications due to use of synthetic grafts is high.<sup>2</sup> In this study, we aimed to show the details of the surgical technique we used and the possibility of constituting fistula without using synthetic graft.

Between January 1997 and December 2002, AVF were performed hemodialysis-dependent chronic renal failure patients at our department. The non-dominant upper extremity was preferred and patients are warned for taking care of their chosen arms 2 weeks before the operation in terms of not permitting vascular interventions. In patients having more than one convenient area on the same extremity, the most distal ones are preferred in order to protect parts that are more proximal. In order to prevent postoperative ischemia, brachial and ulnar pulses were evaluated manually and by Doppler ultrasound before the operation in all cases. Regarding the adverse effect of high venous pressure on the short-term patency rates, it was avoided to choose the areas intervened by central or peripheral venous catheters due to higher possibility of venous hypertension. All the interventions were carried out by applying bupivacaine (Citanest®) using local infiltration anesthesia. Single dose sodium cefoperazone was introduced to all prophylaxis intravenously before the operation. After the dissection, the arteries and veins were exposed and Heparin freed (100)U/kg) was intravenously 5 minutes before clamping the vessels. After arteriotomy and venotomy of no longer than 5 mm, a side-to-side anastomosis was carried out using 7/0-10 mm polypropylene suture material. When the thrill reaches an adequate quality, the distal part of the vein was ligated close to the anastomosis site by silk ligatures to convert the anastomosis to end-to-side form. The tissues covering the vein were removed in order to prevent flow blockage. Skin and subcutaneous tissues were sutured by mattress technique using 3/0 Dexon suture material. All the operations were carried out by using 3.5x magnification loop. Antiaggregants anticoagulants were not administered and postoperatively.

The mean age of 486 patients (293 males, 193 females) who underwent AVF operation was 47.3±5.3 (range 14-72 years). Left upper extremity was operated in 391 (80%) patients. Around 392 patients (80%) underwent fistula operation only once, as early patency was obtained following the first operation. Among 94 cases whose fistulas did not function, 40 cases (42%) underwent re-operation at the level of brachial artery, whereas the remaining 54 at the contralateral radial artery and cephalic vein. Functioning fistula was obtained in 73 patients with the operation increasing the total number of functioning fistulas to 464 (96%). In spite of the second operation, 21 cases needed re-operation using either cephalic or basilic vein with brachial artery. As a consequence, in our series of 486 cases, functioning fistulas were provided without using an additional intervention at femoral artery level or a

synthetic graft material in a total of 601 operations. The average follow-up time was 25.1 months. Brescia-Cimino type, radial artery and cephalic vein fistulas in 540, brachial artery and either one of cephalic or basilic veins in 61 interventions were used. Eighty-percent (436) of radial artery and 100% (61) of brachial artery fistulas were functioning. The patency rate was significantly higher in brachial artery fistulas than radial arteries (p<0.05 with Mann-Whitney U test). In 28 (5.1%) patients who underwent Brescia-Cimino type fistula operation at radial artery level, complications developed in 24 hours following the operation. Among the cases underwent revision, in 17 patients (3.1%) hematoma, in 7 patients (1.2%) bleeding and in 4 patients (0.8%) acute thrombosis were observed and all were completely treated by either one of drainage, bleeding control or thrombectomy. None of our patients had ischemic complications.

The patients with end stage renal disease should admit hemodialysis programs until getting the renal transplantation. arteriovenous fistulas performed should have the highest patency rates for the longest duration with least discomfort during the operation. Blood flow required for hemodialysis is 250 cc per minute on an average. This flow rate can be maintained by arterialized veins via fistulas constituted surgically between superficial veins and arteries, especially on the arms. For this purpose, Brescia-Cimino type arteriovenous fistulas are mostly preferred.<sup>1</sup> A low complication rate, long duration of patency and easy applicability to children made this procedure a standard method in a short period of time.<sup>3</sup> The most appropriate localization for Brescia-Cimino type AVF operation is defined to be between radial artery and cephalic vein at wrist level. The patency rate of 80% of fistulas between radial artery and cephalic vein after the first operation in the present study was within the reported range of 73-93%.1 Unfortunately, during the diagnostic and therapeutic venous interventions procedures many performed around this area and therefore, it is not always possible to carry out the optimal procedure defined. The AVF between brachial artery and basilic or cephalic vein was used as the second choice due to from periphery to the center principle in our series and the patency rate was 100%. It was revealed that the early patency rates are lower at the anatomical snuffbox level than those of more proximal. This was emphasized in some other article previously.4

Our technique is based on the side-to-side type of anastomosis between radial artery and cephalic vein. The early thrombosis rate is found to be lower in side-to-side type of anastomosis than that of end-to-side type of anastomosis. Regarding that we ligated the proximal part of vein after the

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 probability low of infection.6 We 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.7 Edema distal to AVF was not observed in any of our cases. It is likely that ligation of the distal vein with Nr.1 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.8

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.1 These