

Short communication

Thrombosis of the External Iliac Artery after Paid Renal Transplantation in Pakistan

M. Karagjozov¹, Lj. Lekovski², J. Masin-Spasovska³, D Petrovski², A. Mickovski², T. Nikolova⁴ and G. Spasovski³

¹Department of Thoracic and Vascular Surgery, ²Department of Urology, ³Department of Nephrology, ⁴Department of Anesthesiology, University Clinical Center, University of Skopje, R. Macedonia

Abstract

Because of the organ shortage problem in regions like the Balkans a lot of desperate dialysis patients procure an unrelated donor kidney transplant at the third world countries and against all medical advices. A variety of technical complications can threaten the transplant in the early postoperative period. Vascular complications are commonly related to the technical problem in establishing vascular continuity or to damage that occurs during donor nephrectomy or preservation.

In this report, we describe a case of a 33-years old woman with a segmental thrombosis of the left external iliac artery as a consequence of some previous vascular damage, complicated by renal artery thrombosis and a graft loss. Fortunately, the development of collateral arterial circulation prevented an ischemic damage of the patient's leg.

In summary, the lack of information regarding both donor and recipient, provided from the transplanting center and the associated, unacceptable risks on the graft and patient morbidity and mortality in this paid transplantation procedure reinforce the standpoint that this practice should be abandoned.

Key words: unrelated paid kidney transplantation, complications, renal artery thrombosis

Introduction

Because of the organ shortage problem in regions like the Balkans where cadaver transplantation has not yet been developed a lot of desperate dialysis patients procure an unrelated donor kidney transplant at the third world countries and against all medical advices. This type of renal paid transplantation is associated with several medical and social problems. A variety of technical complications can threaten the transplant in the early postoperative period. Vascular complications are commonly related to changes because of the long-term dialysis treatment as well as to the technical problems in establishing vascular continuity or to damage that occurs during donor nephrectomy or preservation (1).

Case report

A 33-year old woman with end-stage renal disease on dialysis for 6 months consulted at our outpatient transplant clinic at one month after living paid kidney transplantation in Pakistan. There was an obscure medical documentation from

the three successive surgical revisions in the early postoperative period. According to the patient's given data the first operation was indicated at the third postoperative day because of a perirenal fluid collection, abdominal distension and a severe pain in the leg of the graft side. It was supposed that a kind of vascular and also a new ureterovesical reanastomosis were performed. There was an abdominal drainage but the graft function (serum creatinine 141 µmol/l) and the majority of clinical and biochemical parameters were within referent ranges at this first consultation at our unit.

Two days after the initial visit, she appeared at the Surgery Department with a massive bleeding and an urgent revision with a new ureterovesical anastomosis was performed. She was substituted with erythrocyte transfusion, fresh frozen plasma and crioprecipitate in order to prevent any further bleeding. The diuresis at first few postoperative hours was excellent, slowly tapering down thereafter to less than 20 ml per hour until the next morning. The Doppler diagnostic showed poor hemodynamic supply of the graft. In addition, the abdominal spiral computed tomography revealed a complete thrombosis on 7 cm segment of the left external iliac artery (arrow) and a presumed subsequent renal artery thrombosis (Figure 1).



Figure 1. Reconstructed abdominal computed tomography showed segmental thrombosis of the external iliac artery

The leg was becoming livid and a bit colder than the other side (Figure 2). Hence, a new surgical treatment was indicated. Since the trombectomy by Fogart device was not successful we proceeded with a classical revision of the vessel anastomosis. A dissection of the external iliac artery

was confirmed and replaced by gore-tex graft in a segment of 5-6 cm. A successful thrombectomy of the renal artery and a new anastomosis with the vascular graft were performed. There was a limited blood flow from the renal vein and subsequent mild diuresis from 800 – 1000 ml in the next 2 days. However, Doppler diagnostic showed an insufficient parenchimal blood flow with a high resistance index of 0.78. The treatment with anticoagulant drugs did not improve the graft function and the general condition of the patient was complicated by development of a septic syndrome and prolonged hemorrhage from the wound. Hence, the graft was explanted and a new thrombectomy of the external iliac vein were performed 5 days after the first revision. The patient recovered well within the next month, but still there was a severe pain in her leg. A new Doppler and angiography diagnostic revealed absence of the blood flow through the external iliac artery and a collateral hemodynamic for the lower part of the leg. She was not able to walk during the next 3 months. Thanks to the sustained physiotherapy and her strong will to exercise she became able to walk alone again thereafter. Due to a number of surgical interventions performed on the aorto-iliac-femoral segment and the high risk for an additional complication, our further reconstruction is delayed for a period of complete psycho-physical recovery of the patient.



Figure 2. Ischemic changes of the left leg

Discussion and conclusion

Here, we do not know anything about the type of vascular damage and related surgical procedures in order to manage these problems since no adequate information regarding both donor and recipient was provided from the transplanting center (2). As a consequence not only a loss of the graft but also an additional patient's invalidity could have been developed. Hence, the long-term prognosis of this living unrelated paid transplantation remains poor in line with our previous report (3,4).

In summary, the lack of information regarding both donor and recipient, provided from the transplanting center and the associated, unacceptable risks on the graft and patient morbidity and mortality in this paid transplantation procedure reinforce the standpoint that this practice should be abandoned.

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