VASCULAR COMPLICATIONS IN LIVE RELATED RENAL TRANSPLANTATION

Sandeep Sharma, Rohit Upadhya, Aneesh Srivastava, Rakesh Kapoor, Priyadarshi Ranjan
Sgpgi Campus, Raebareli Road, Lucknow

The aim of this study was to analyze cases in which major vascular complications occurred after live related renal transplantation. The ultimate graft and patient outcomes were studied.

Patients and Methods- Records of 1945 consecutive cases of live related renal transplants performed between 1989 and 2009 were reviewed. In cases with single renal artery and vein, renal artery was either anastomosed to internal iliac artery using end to end technique or to external iliac artery using end to side technique and venous anastomosis was done by end to side of renal vein to external iliac vein in all cases. Cases with multiple vessels were dealt with either separate anastomoses or as a single pantaloon anastomosis depending upon individual anatomical findings. Post operatively two dimensional ultrasound and color Doppler was performed whenever there was clinical suspicion and further investigations were done accordingly.

Results- The overall incidence of major vascular complications was 1.29%. Out of these, 11 cases had significant renal artery stenosis. Aneurysm formation at the site of anastomosis was seen in 2 cases. Apart from these, thromboses of renal artery and vein were seen in 9 and 3 cases respectively. 2 Cases with renal artery stenosis were managed successfully by placement of endovascular stents after balloon dilatation. Rests of the cases were managed by medical treatment alone. In cases of aneurysm formation we had to do allograft nephrectomy in all cases. Similarly cases with arterial or venous thrombosis, the allograft could not be saved.

Conclusion- Major vascular complications in live related renal transplants are rather uncommon. If a timely diagnosis is made, renal arterial stenosis can be managed successfully by endovascular techniques. In cases of aneurysm formation or thrombosis of major renal vessels, it is difficult to salvage the graft.