Serum Levels of Lipoprotein (a) after Renal Transplantation: Short-term Follow-Up

C.W.	Chul Woo	Yang
Y.S.	Yong Soo	Kim
S.Y.	Suk Young	Kim
Y.S.	Yoon Sik	Chang
Y.S.	Young Suk	Yoon
B.K.	Byung Kee	Bang

Department of Internal Medicine, Catholic University Medical College, Seoul, Korea

Chul Woo Yang, MD, Dept. of Internal Medicine, Kang Nam St. Mary's Hospital, Catholic University Medical College, No. 505 Banpo-Dong Seocho-Ku, 137-040 Seoul (Korea)

Fig. 1. Serum levels of Lp(a) in controls, before and after RT. *p = 0.00004, **p = 0.01, compared to controls. – = Median.

20-

References

Loscalzo J: Lipoprotein (a), a unique risk factor for atherothrombotic disease. *Atherosclerosis* 1992;10:672-679.

Kandoussi AK, Cachera C, Doninique P, Dra-con M, Fruchart JC, Tacquet A: Plasma level of lipoprotein Lp(a) is high in predialysis or hemodialysis, but not in CAPD. *Kidney Int* 1992;42: 424-425.

Dear Sir,

Lipoprotein (a) [Lp(a)] is an independent risk factor of atherosclerotic vascular disease [1]. Although it has been known that Lp(a) levels in chronic renal failure undergoing hemodialysis were elevated compared to normal controls [2], the precise mechanism is unclear. Therefore, this study was undertaken to see whether improved uremic condition or renal function after renal transplantation (RT) will decrease serum Lp(a) levels in renal transplant recipients.

The study group consisted of chronically hemodialyzed patients, 16 males and 14 females, aged between 24 and 45 years (mean 34). Healthy controls were blood bank donors, 13 males and 17 females aged between 26 and 42 years (mean 39). All renal transplant recipients took cyclosporine and prednisone as scheduled and showed no episodes of acute rejection during the follow-up period. Serum samples were collected from the patients before and after RT (1 week, 4 weeks and 6 months) and were stored at -70°C until the study was performed. Lp(a) levels were measured using an ELISA assay. For this purpose, we used a commercially available assay (Immuno GmbH Co.). This test kit is based on a well coated with monospecific, polyclonal antiapolipoprotein (a) antibody, and conjugates consisted of second monospecific antiapolipoprotein (a) antibodies and peroxidase. All samples were read with

the spectrophotometer at 450 nm. Statistical analyses were performed by the Friedman and Wilcoxon signed-rank test.

In our study, Lp(a) levels in patients before RT (mean value 25.5 ± 19.2 mg/dl) were

Control Before RT* After** After

1 week 4 weeks 6 months

significantly higher than those of controls (mean value 9.6 ± 6.1). One week after RT, serum Lp(a) levels (mean value 16.1 ± 12.5) decreased significantly, but thereafter, there were no significant changes of serum Lp(a) levels (fig. 1).

So, we conclude that, after RT, improved uremic condition and renal function may be associated with decline of the serum Lp(a) level. However, more long-term studies are needed to define the role of Lp(a) in the pathogenesis of atherosclerotic vascular changes in renal transplant recipients.