Are the Increased Lp(a) Levels in Hemodialysis Patients Related to Glucose Intolerance and Hemodialysis Duration?

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Dear Sir,

Increased serum Lp(a) levels have been repeatedly reported in hemodialysis patients [1-3], and could contribute to the high incidence of cardiovascular disease observed in this population [4]. It has recently been stated that there is an inverse correlation between serum Lp(a) levels and duration of hemodialysis, a finding suggestive of the significance of the increased Lp(a) levels in the high cardiovascular mortality; patients with lower Lp(a) levels are selected because of a lower incidence of cardiovascular mortality [5]. However, having studied a large group of hemodialysis patients we have shown that no correlation was found between serum lipid parameters [including Lp(a)] and duration of hemodialysis [6]. Additionally, no significant differences in Lp(a) levels as well as in the other lipid parameters were evident between patients on hemodialysis for more than 24 months and those on hemodialysis for a shorter period (table 1). In the same study group we isolated a subgroup of 23 patients who were on dialysis for over 80 months (range: 82-170 months). No significant differences were observed in serum Lp(a) levels or in other lipid parameters between this subgroup and the whole group of hemodialysis patients (240 individuals). Our findings do not exclude the contribution of increased Lp(a) levels to the development of cardiovascular disease in hemodialysis patients; they rather suggest that lipid parameters do not change during hemodialysis and that lipid abnormalities are not the main and exclusive factors for the increased cardiovascular mortality observed in hemodialysis patients. Fiorini et al. [5] also reported that serum Lp(a) levels are not increased in hemodialysis patients with impaired glucose tolerance or non-insulin-dependent diabetes mellitus. It has been proposed that the good metabolic control and the absence of abu-

tween Lp(a) levels and indices of metabolic control [7]. The reasons for the observed discrepancies are not well known but they may relate to factors such as the small number of patients, the significant heterogeneity of the diabetic population, the different ethnic background, etc. Further long-term prospective studies with a larger number of patients are essential to resolve the controversies which have arisen.

minuria were the suggested causes. Interestingly, we have recently described that median serum Lp(a) concentration was significantly elevated in diabetic hemodialysis patients

compared to nondiabetic hemodialysis ones matched for age, sex and duration of hemodialysis (26 vs. 14 mg/dl, $p < 0.01$ by Mann-Whitney U test [7]. Moreover, the mean value of HbA_{1c} (%) of our patients was 7.8%, implying a relatively good metabolic control, while there was no correlation be-

Table 1. Clinical and laboratory parameters in patients on dialysis for longer than 24 months versus those on dialysis for less than 24 months

Values are means $\pm$ SD except for Lp(a), where medians and ranges are shown. TC = Total cholesterol; C = cholesterol; TG = triglycerides; EPO = erythropoietin; NS = not significant.

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Nephron 1996;74:623-624

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