The Apparent "Epidemic" Increase in the Incidence of Renal Failure from Diabetic Nephropathy

S.		Geberth
J.		Lippert
E.		Ritz

Department of Internal Medicine, Ruperto Carola University, Heidelberg, FRG

Prof. Dr. E. Ritz, Ruperto Carola University, Department of Internal Medicine, Bergheimerstrasse 58, D-69115 Heidelberg (FRG)

Dear Sir,

Currently, there is some uncertainty concerning the proportion of patients requiring renal replacement who suffer from diabetic nephropathy. The EDTA registry reports that in different European countries, between 3 and 12 diabetic patients per 106 population per year are accepted who suffer from diabetes mellitus (and by implication mostly diabetic nephropathy), 74% being of type I and 26% of type II. The proportion of diabetics is higher in northern than in southern Europe. In Germany, the proportion of diabetics amongst those admitted to renal replacement programs is reported as 21.5% [1]. According to an incidence study of our own, in 14 German dialysis centers [2], the average proportion was 24.2% from 1986 to 1988.

We have now analyzed the patients who were admitted to the Renal Unit of the University of Heidelberg in 1990/1991 (1) for renal replacement therapy or (2) newly admitted for evaluation in earlier stages of renal dysfunction. In 1990, 34 patients (= 36%) admitted for renal replacement therapy suffered from diabetes mellitus (all type II) and in 1991, 7/16 patients (= 44%) (1 type I, 6 type II). The unit serves a population of approximately 350,000. Even this high proportion may underestimate, however, the magnitude of the problem. In nondiabetic patients, we found that for each patient who makes it to end-stage renal failure, approximately 1 patient dies from cardiovascular causes before reaching end-stage renal failure [3]. Of the 657 patients admitted to the renal clinic in 1991, 83 were diabetic (46 male; 12 type I/71 type II). In 21, the diagnosis of diabetic nephropathy with impaired renal function, i.e., serum creatinine 2 mg/dl, was made de novo. Three newly diagnosed patients entered the renal replacement program; 6 were diagnosed in advanced (serum creatinine 5-9 mg/dl) and 12 in moderate renal failure (2-5 mg/dl).

We feel that the apparently continuous increase in the proportion of patients with pre-end-stage and end-stage renal failure who suffer from diabetes mellitus type II is quite alarming, particularly since this cause of renal failure is preventable at least in principle. Possible reasons to account for the recent marked increase may be better control of blood pressure and better coronary care which permit patients to survive longer so that they are more frequently exposed to the risk of reaching end-stage renal failure [4].

The implications of the above observations for public health and preventive programs are obvious.

References

Brunner RP, et al: Renal replacement therapy in patients with diabetic nephropathy 1980-1986 (Rep Eur Dial Transplant Assoc Registry). Nephrol Dial Transplant 1988;3:585. Koch M, Thomas B, Tschöpe W, Ritz E: (letter). Nephrol Dial Transplant 1989;4:399. Fliser D, Schweitzer CH, Ritz E: Risk of cardiac death in preterminal renal failure. Nephrol Dial Transplant 1991;6:771.
Ritz E, Nowack R, Fliser D, Koch M, Tschöpe W: Type II diabetes mellitus: Is the renal risk adequately appreciated? Nephrol Dial Transplant 1991;6:679-682.

©1993 S.Karger AG, Basel
0028-2766/93/
0651-0160\$2.75/0