Beta-2-Microglobulin Levels of Dialysis Patients with Renal Amyloidosis Secondary to Familial Mediterranean Fever

C.	Cem	Sungur ^a
S.	Seza	Ozen ^b
C.	Cumhur	Ozkuyumcu ^c
T.	Tekin	Akpolat ^a
U.	Unal	Yasavul ^a
C.	Cetin	Turgan ^a
S.	Sali	Caglar ^a

^aNephrology Unit, ^bPediatric Nephrology Unit, and ^cClinical Microbiology and Biochemistry Laboratory, Hacettepe University School of Medicine, Ankara, Turkey

Cem Sungur, MD, PK (PO Box) 272, 06693 Kavaklıdere, TR-Ankara (Turkey)

with FMF were compared to 5 chronic hemodialysis patients with different renal disease. None of these patients had active inflammatory disease (e.g. active SLE) or infectious complications. All of the patients were dialyzed with cuprophane membranes and acetate-containing dialysate. The duration of renal replacement therapy, daily urinary output, and frequency of hemodialysis sessions were comparable between these two patient groups. All patients with FMF and AA-type amyloidosis were receiving colchicine 1.0 mg/ day regularly. β 2M levels were measured in venous samples drawn before the initiation of

Dear Sir,

AA-type renal amyloidosis secondary to familial Mediterranean fever (FMF) is a frequent disease leading to end-stage renal disease (ESRD) in certain ethnic groups [1, 2]. The disease is characterized with recurrent inflammatory episodes in which several cyto-kines are elaborated [3, 4]. It has been shown that beta-2-microglobulin (β 2M) which is the precursor protein of dialysis-related amyloidosis (DRA) is elevated during acute inflammatory attacks [5]. In order to examine whether patients with FMF receiving regular dialysis treatment have more pronounced levels of β 2M, the serum β 2M levels of 5 patients

Table 1. β 2M

levels in dialysis patients with and without FMF

Duration Frequency Urine Serum

of dialysis of dialysis volume β 2M months week ml/24 h μ g/ml

dialysis (LiaMat-Cambridge Life Sciences). The normal level for this kit was 0.3-2.0 μ g/ ml and the upper limit was 75.0 μ g/ml. The patient characteristics and results are shown in table 1.

It has been established that once a uremic state develops the frequency and severity of acute attacks of FMF subside and colchicine effectively inhibits these attacks. Our data also show that higher β 2M levels are not found in dialysis patients with FMF who are receiving colchicine, and higher levels are observed with longer intervals of renal replacement treatment and decreasing urinary output. It may be speculated that they are not at increased risk for a second type of amyloid deposition in shorter periods than other dialysis patients.

With FMF 1
 2 3 4 5 Mean
 With non-FMF 1 2 3
 4 5 Mean
 6
 8 36 48
 9 21.4
 6 10 36 52 48 30.4
 3 2 3 3 2 2.6
 800 300 200 200 300 360
 200
 600 200 200 240
 15.2 56.9
 52.6
 > 75.0
 67.1
 53.4
 43.9 33.1 39.1 > 75.0 46.1 56.2

References

Ozer FL, Kaplaman E, Zileli S: Familial Mediterranean fever in Turkey: A report of twenty cases. Am J Med 1970;50:336-339. Sohar E, Gafni J, Pras M, Heller H: Familial Mediterranean fever. A survey of 470 cases and review of the literature. Am J Med 1967;43: 227-253. Ozyilkan E, Simsek H, Telatar H: Tumor necrosis factor in familial Mediterranean fever. Am J Med 1992;92:579-580. Schattner A, Hahn T, Lachmi Livneh A, Pras M, Hahn T: Tumor necrosis factor in familial Mediterranean fever. Am J Med 1991 ;90:434-438. Koch KM: Dialysis-related amyloidosis. Kidney Int 1992;41:1416-1429.

© 1994 S. Karger AG, Basel
 0028-2766/94/
 0681-0152\$8.00/0