Age and Dialysis-Related Amyloidosis

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Dear Sir,

The time when dialysis-related amyloidosis (DRA) broke out could be accurately determined in 33 patients (17 males and 16 females) undergoing maintenance hemodialysis. DRA was diagnosed according to radiological pro forma described in detail elsewhere [1]. Features of DRA in these patients are summarized in table 1.

The patients had been dialyzed for 48-182 months before DRA developed; cuprophan membranes had been used exclusively or mainly throughout. Interestingly, in such patients we found a significant inverse correlation between duration of dialysis at the onset of DRA and patients’ age at the start of dialysis therapy (fig. 1). This observation would suggest that age per se may influence the amyloidogenesis process itself, but the mechanism(s) remains unknown.

In our opinion, this observation may be relevant for developing therapeutic strategies in this clinical setting. Given the proneness of elderly patients to develop ‘accelerated’ DRA, as it results from our findings, these patients should probably benefit by the use of synthetic membranes, which indeed have been suggested to prevent or at least delay the amyloid formation and deposition [2].

References

$r = -0.71$ p < 0.001

30
40 50 60
Age, years
70
80
Fig. 1. Relationship between duration of dialysis at the onset of DRA and patients’ age at the start of dialysis therapy.