editorial comments

Placing the elderly undergoing hemodialysis in the spotlight

F. García López[1] and R. Saracho Rotaeche[2]

[1]Registries Coordinator of the Spanish Society of Nephrology. [2]Future Registries Coordinator of the Spanish Society of Nephrology.

Currently, the proportion of elderly patients in renal replacement therapy programs is considerable. In Europe, more than half of the new patients starting therapy are older than 65 years, whereas more than half of prevalent patients are older than 55 years.[1] This situation is the result of the upsurge of acceptance for renal replacement therapy that has occurred in developed countries for the last two decades, mainly due to the incorporation to the programs of elderly patients and patients with diabetes mellitus,[2] which were initially excluded, mainly due to financial issues. This upsurge that led to a sustained increase in incidence rates[3] seems to be reaching a new stabilization phase, and even a slight decrease in the last years; this phenomenon is also happening in Spain, according to the last annual report.[4] This stabilization occurs across all age groups, including those older than 65 years.[5] The reasons for this stabilization are unknown and it is premature to attribute them to the effects of preventive measures taken against hypertension, diabetes, or during early phases of chronic renal disease, without taking into account other population-related issues less known or difficult to interpret. However, although the incidence is not increasing, or even slightly decreasing, the prevalence of chronic renal failure requiring renal replacement therapy still is increasing with the subsequent increase in consumption of needed resources.[5]

In spite of the numerical importance of elderly patients in renal replacement therapy, and in particular in dialysis, the reports focusing on chronic renal failure management in this age group are scant. The elderly constitute a particular group with peculiar demographical and clinical characteristics, and their management gives rise to financial and ethical concerns.[6] Observational studies carried out in Spain have contributed to undo topics on health-related quality of life in elderly patients on dialysis.[7-9] Fortunately, in recent times there has been an increasing interest in the epidemiology of chronic renal disease in the elderly, which manifests in recent publications both in patients receiving dialysis[10-12] and patients on conservative therapy.[13, 14]

This issue of Nephrology includes the report on a multicenter study carried out in Spain[15] describing multiple issues in hemodialysis therapy of patients older than 65 and 75 years at different hospital and extra-hospital centers. This is the first comprehensive report of the like analyzing relevant issues for the nephrologists such as compliance with the most important indicators included in clinical practice guidelines on hemodialysis, together with especially relevant issues in the elderly such as place of residence, functional status, level of dependence for daily living activities, as well as other of general importance such as the transportation type to commute to the dialysis center, the time spent for that task, the time elapsed from diagnosis of chronic renal failure to dialysis onset, or the kind of physician referring the patient to the nephrologist. This information is highly valuable and may constitute a comparison pattern for future studies measuring the progress in multiple issues related with hemodialysis therapy in the elderly.

Despite of being a multicenter study with a large patient coverage, the study by De Francisco et al.[15] does not include the whole set of patients managed with hemodialysis in Spain, as would have happened had the data source be the dialysis and transplantation registries, and it is not a random sample. This raises the concern about the possibility that the sample size will not be completely representative of the current population of elderly patients on dialysis therapy, so that the results of the study may not be completely inferable to the Spanish population receiving this therapy. However, the sample size is considerable and there are no reasons for expecting big differences with the Spanish population.

On the other hand, as the authors point out, the cross-sectional design does not allow following the patients to analyze their mortality or future morbidity. The patients included in the sample are not incident patients but prevalent ones, they are not analyzed from the beginning of dialysis but from a further moment, they offer an immediate picture of their status at the time of the study, but that picture cannot include those having died before having the possibility of being included into the study, and that presumably would have had higher morbidity and worse functional status, so that the situation described may have overestimated to some extent the real status of the patients. Besides, the cross-sectional design entails another drawback: the associations described, for instance between the level of anemia and daily living activities and functional status, or between serum albumin levels and place for hemodialysis, merely are associations but not causal relationships. In a cross-sectional study virtually never the causality di-

Correspondence: *Fernando García López*
fjgarcia@medynet.com
Unidad de Epidemiología Clínica
Hospital Universitario Puerta de Hierro
San Martín de Porres, 4. 28035 Madrid

rection can be known. These data do not inform about causal relationships, which might be of three kinds: it may be that appropriate management of anemia improves the functional status; it may happen the other way around, that worsening of the functional status makes anemia more severe through poorer feeding or other mechanisms; or, the most likely situation, it may happen that a third factor, such as baseline disease or comorbidity, affects both functional status and anemia, which would not have any direct causal relationship between them.

However, the fact that this study has not been based on registry data entails, nowadays, an advantage since it has allowed the authors gathering information about very important variables in the process of quality management in hemodialysis (anemia, phosphate-calcium metabolism, cardiovascular risk factors, dialysis adjustment, vascular access) that regrettably are not systematically collected in most of dialysis and transplant registries, which are currently focused on basic demographics. The process of creation of population-based registries in Spain is not yet completed but will be done soon. Besides, in the future, registries will progressively incorporate dialysis quality indicators among other variables. At the present time, through the QUEST initiative,[16-18] measures are being taken to define those variables of indicators that the European registry of the ERA-EDTA would recommend for all national and regional registries within our setting in order to measure the implementation of the European good clinical practice guidelines.

We welcome these studies helping us to better know the situation of elderly patients on hemodialysis, this large group deserving the research focus of the nephrology scientific community.

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