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"Very elderly patients on haemodialysis: Evolution and its relation with comorbidities".
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Elderly on haemodialysis, looking for quality of life

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"The secret of the care of the patient is in caring for the patient"

Dr. Frances Peabody, Harvard 1925[1].

THE FACTS

Renal replacement treatment (RRT) with dialysis is a well-succeeded chapter of the medical history, offering a life-prolonging treatment for patients with chronic kidney disease stage 5 (CKD-5).

Despite the high mortality rates among this population, it has improved in the last decades. Quality of life has been improving too, according with the RRT technical development and, probably, with the better condition of patients starting RRT[2]. Data from United States Renal Data System (USRDS) 2014 shows that the mortality rate for haemodialysis patients fell by 3% from 1993 to 2002 and by 25% from 2003 to 2012[3]. However, there is a special age group, the elderly and very elderly patients on dialysis, with different outcomes[4].

Some data predict that the absolute number of individuals aged 65-74 years and older than 75 years, will increase about 1.5 fold in 2025 (as compared to 2010) and even more than two-fold in those older than 75 years in 2030-40. The prevalence of chronic kidney disease (CKD) has increased too in the last decades, but it seems to remain stable in the last 10 years[2,3], maybe because of the nephrology community effort to prevent, diagnose and treat CKD. Anyway, the CKD prevalence is estimated at about >10% of the population. Worldwide incident and prevalent CKD-5 patients and dialysis patients have been rising consistently in the last decades, which is especially dramatic for age 65 and over. Even if the age is not (and never should be) a limit for renal replacement treatment, it is an important handicap on dialysis.

In Portugal[5], the incidence and prevalence rates of patients with CKD-5 under any RRT were in 2013, 231 and 1749 per million population (pmp), respectively; for age 65 and over, the incidence and prevalence were 712 pmp and 3366 pmp, respectively. The Portuguese dialysis population prevalence raised 21.5% from 2007 to 2013. These are not isolated data in Europe or the United States. The USRDS 2014 report[3] shows an increase on the dialysis population, reaching in 2012 prevalence 57% higher than in 2000. So, this public health-socio-economic problem[6] is here and it is getting bigger and bigger, with dramatic consequences in the near future.

THE CHALLENGE

The benefit of dialysis is to prolong the survival in patients with CKD-5, maintaining quality of life. Although it is often assumed that dialysis will restore health, this is not always the case and disabled patients often become more disabled after dialysis initiation[7,8]. It may also aggravate or prolong a patient's suffering for the remainder of his life, and even extend the dying process.

Elderly patients on dialysis seem to have a higher burden of ageing problems, such as cardiovascular disease, frailty and cognitive impairment, greater than the general population[9]. Frailty (defined in the presence of three of five criteria: unintentional weight loss, self-reported exhaustion, slow gait speed, weakness and low physical activity) is strongly associated with high mortality rates and increased hospitalization at the time of dialysis initiation[10]. There is also emerging evidence that dialysis initiation may be associated with accelerated rates of functional and/or cognitive decline[8,11] in this group. Some papers also report a high mortality rate in the first 3 months after haemodialysis (HD) start, especially in very elderly patients with a higher comorbidity score[12,13]. The survival on dialysis for ageing patients is limited by several factors, and the individualized assessment should be an important criterion before any decision. There are also studies reporting a life expectancy inferior to 12 months for older patients[14-16] on HD. At the same time, a substantial minority of those very old patients may live on HD for years, with reasonable quality of life[8]. This heterogeneity in mortality, appears to be driven by differences in baseline comorbidity[12,15,17].

An increasing number of international and national papers, have focused this matter and especially the results of dialysis on elderly population[18], trying to find a clue or tools (like the Charlson index, Cohen clinical score, Stoke score...) to help the nephrologists in risk and prognostic stratification, to achieve a better understanding about who are the patients with potential benefits on dialysis treatment and who are not. The interesting data published recently in this journal by Bento *et al.*[12], with a mortality rate for very elderly patients greater than 27% at the first 3 months on HD and a life expectancy inferior to 12 months in 45% of these patients, should be an opportunity for reflection.

Frequently, the easy decision for most of elderly CKD-5 patients and nephrologists, is to begin dialysis and maintaining under an RRT programme; the opposite, to decide not to start or maintain dialysis, and choosing or promoting a conservative management is harder, due to several factors (difficulty to achieve a clear medical informed decision, the patient's culture, the family pressure, a paternalistic society...). Fortunately, the implementation of pre-dialysis programmes has allowed to improve the patient and family information and shared decision making, an increasing knowledge about the outcomes on dialysis for this special group of very elderly patients and a better social understanding and legislation support[19] with important advances in this area. However, there is still left a lot of work to develop in this nephrology field. In this setting, the nephrologist must be sensitive not only to the medical issues but also to issues related to quality of life and the individual values.

Several important activities must be continued and improved: educational and preventive CKD programmes for population and patients, tools for support the decision about the best treatment option for patients, and a better medical and social support for conservative management and end-of-life care for renal patients[20-24]. The nephrology community and patient organizations should keep on putting pressure on health authorities for their facing the CKD problem. In this way, we will be better prepared to stand up to the CKD epidemic.

IN SUMMARY

Dialysis is an appropriate treatment option for well-informed elderly patients with good baseline quality of life. However, dialysis will not improve clinical outcomes for all older people with CKD5 and an extremely careful clinical judgment and communication with the patient should be guaranteed before any decision. Setting strategies to identify which are the patients who have reasonable life expectancy and quality of life on dialysis and which are the patients with benefit on conservative management should be a priority in nephrology care. Medical education on palliative care for nephrologists should be an essential matter of our curricula. Through those actions we will be able to ensure optimum care for our patients, their families and ourselves, as care providers in nephrology.

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