

Comment

Renal diseases are common in all age groups, however the widespread knowledge about their specifics in the extreme ranges of age might be not sufficiently updated, even among specialists. That is why the nephrologists working on daily basis with the youngest children and the elderly were invited to publish in this issue of "Postępy Nauk Medycznych" ("Progress in Medicine"), and share their expertise with other professionals.

Renal problems may be present from the very beginning of individual's life. If this happened, the genetic background has been usually responsible, also in case of the nephrotic syndrome. The early proteinuria onset and the resistance to corticosteroid therapy are highly indicative of genetic mutation. The treatment of such cases is dramatically difficult, sometimes calling for as aggressive therapy as bilateral nephrectomy, followed by renal transplantation (1). The nephrotic syndrome and erythrocyturia, presenting in the elderly may be equally challenging to the nephrologists, for performing renal biopsy in these patients is sometimes not possible second to their medication or physical condition. IgA nephropathy, the most common in adults and rapidly growing glomerulopathy, is of special interest to many specialists dealing with seniors, in regard to the approaching the differential diagnosis and therapeutic options available in the elderly (2).

The acute kidney injury (AKI), which incidence is on the rise in all age groups, has poor outcome, both short and long term independent of age, and the early diagnosis is crucial to improving it. It is optimistic the early kidney injury markers (cystatin C, neutrophil gelatinase-associated lipocalin, kidney injury molecule-1, interleukin-18, liver fatty acid-binding protein), all successfully used in adults can be also applied in neonates (3). Even so, the mortality among the youngest-ones remains high. On the other age extreme, AKI was diagnosed in up to 25% of in-patients, but only one in five of our AKI patients were younger than 75 years of age (4).

Chronic kidney disease (CKD), also that resulting from AKI, is usually progressive, increases the risk of premature death and brings to the patients and their families all burdens of chronic disease. It is of extreme interest to both, patients and doctors, the life-style changes can improve the kidney disease outcomes, provided these start early, because some adverse effects of life-style accumulate along the years. The low fluid intake, alcohol abstinence and high alcohol consumption, smoking, low physical activity, high energy intake, and macro- and micronutrient intake, are all linked to worse CKD prognosis. Unfortunately, changing behaviours might be a challenge (5).

Arterial hypertension prevalence and the risk of related diseases and complications increase with age, which further augments the risk of cardiovascular (CVS) death. In the group of 423 patients referred for coronarography due to coronary thrombosis 83% presented also hypertension, which was more frequent among the elderly, who additionally presented increased risk for obesity and lower eGFR (6). In the elderly with CKD, the excessive risk of CVS death translates into lower risk of end-stage renal disease, for many of them die before in need of dialysis or kidney transplantation. That group of patients could profit from more frequent use of aspirin, statins, angiotensin-converting enzyme inhibitors, beta-blocking agents and revascularization procedures, as much as the younger one does (7).

The good message to the CKD patients is, people who despite all efforts eventually will lose their own kidney function are not death-sentenced. Despite the lower probability of getting on dialysis as compared to the population of less than 65 years of age, the elderly CKD are the most rapidly growing group of dialysis patients. The initiation of chronic RRT in these patients should be based on clinical ground, and in some of them continuation of conservative treatment might be a viable option, considering comorbidities and quality of life (8). One of the most important issues in the elderly commencing hemodialysis as the chronic RRT of choice, is a good vascular access. Patient's age is no obstacle in obtaining a functional arterio-venous fistula, as it was shown in an retrospective analysis of surgery outcomes in 203 patients (9). Once on dialysis patients may develop new symptoms. One of the common complaints is oral dryness, frequently resulting from the medication prescribed, which should be taken into consideration when planning pharmacotherapy. The oral dryness could result in increased water intake and overhydration, which exacerbate heart failure and hypertension. Measuring the hydration status is extremely important in ambulatory peritoneal dialysis patients. We confirmed, bioimpedance is a useful tool for this purpose, provided it is performed without the presence of dialysis fluid in the peritoneum (10).

Transplantation (Tx) is the best renal replacement therapy (RRT), independent of patients' age. The Tx results in selected groups of elderly are comparable to that observed in younger adults, and the two-years patient and graft survival can be as high as 84.4% and 70.3%, respectively (11). Thus, kidney transplantation should be encouraged also in this age group, despite the limited availability of kidneys for that purpose. Transplanting kidneys from donors over 65 years of age transplanted to recipients over 60 years old (the "old-for-old" principle) could help in that, but it is more burdensome to the medical staff, and entails serious medical issues for both, the donated kidney and the recipient (12).

I hope, the content of papers presented in this issue of "Postępy Nauk Medycznych" justifies the decision made by prof. dr hab. med. Ryszard Brzozowski and myself, to spread the very specific experience in the growing number of renal patients focused at the both extremes of life-span. It is also my pleasure, to thank all the contributing authors for accepting the invitation to publish, and for their efforts to prepare and correct the manuscripts.

Prof. Ryszard Gellert, MD, PhD

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