Прилози, Одд. биол. мед. науки, МАНУ, XXXI, 1, с. 235–239 (2010)
Contributions, Sec. Biol. Med. Sci., MASA, XXXI, 1, p. 235–239 (2010)
ISSN 0351–3254
УДК: 616.379.008.64-06:616.61

EDITORIAL

HOW TO PREVENT AND MANAGE DIABETIC KIDNEY DISEASE IN THE REPUBLIC OF MACEDONIA

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A b s t r a c t: The Macedonian Society of Nephrology, Dialysis, Transplantation and Artificial Organs, the Macedonian Society of Nephrology and the Macedonian Society of Endocrinology and Metabolic Diseases and the general physicians held a one-day meeting on 11 March 2010 at the Macedonian Academy of Sciences and Arts devoted to the prevention and treatment of diabetic kidney disease. In the Republic of Macedonia there are about 100,000 patients with diabetes mellitus type 1 and 2; 85–95 % have diabetes mellitus type 2. On insulin therapy there are around 28,000–30,000 patients. In our papers: *Chronic Kidney Disease: a Hidden Epidemic* (2) and *Public Health Aspects of Renal Disease in the Republic of Macedonia* 1983–2007 (3) we have shown a continuous increase of end stage renal disease and renal replacement therapy (RRT) in the Republic of Macedonia. In 2002, we had 1,056 patients on RRT compared to 1,216 in 2005. In some dialysis centres 20% of the patients on haemodialysis are diabetics. Our message was that there is an urgent need for a screening programme for the detection of Chronic Kidney Disease (CKD) and we will suggest developing a strategy to check each patient in the Republic of Macedonia with diabetes mellitus, to detect early diabetic kidney disease by screening for albuminuria as well as for a reduced glomerular filtration rate. Health authorities, nephrologists and general physiccians should collaborate on the detection of CKD. In our country we should work harder on the prevention of diabetic kidney diseases, to stop or postpone the development of CKD and chronic renal failure with modern therapy and the need for RRT.

Key words: diabetic kidney disease, chronic kidney disease, chronic renal failure, renal replacement therapy, screening program, education.

On 11 March this year the World Kidney Day 2010 was devoted to diabetic kidney disease, under the auspices of the International Society of Nephrology (ISN) and the International Federation of Kidney Foundations (IFKF), together with the International Diabetic Federation (IDF).

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R.C. Atkins and P. Zimmet in their paper: *Diabetic kidney disease: act now or pay later* [1] point out the importance of a better understanding of the global pandemic of type 2 diabetes and diabetic kidney disease. They suggest that it is necessary to alert governments, health organizations, providers, doctors and patients to the increasing health and socioeconomic problems due to diabetic kidney disease and its sequels: end-stage kidney disease requiring dialysis, and cardiovascular death. It should be emphasized that its management involves prevention, recognition and treatment of its complications.

The most important measure is primary prevention of type 2 diabetes. It will require massive lifestyle changes in the developing world, supported by strong governmental commitment to promote lifestyle and societal change.

In the Republic of Macedonia there are about 100,000 patients with diabetes mellitus type 1 and 2; 85–95% have diabetes mellitus type 2. Around 28,000–30,000 patients are on therapy with insulin.

Some of them are candidates for development of diabetic kidney disease.

How to prevent or to postpone diabetic kidney disease and development of chronic renal failure?

We should develop a strategy to detect early diabetic kidney disease by screening for albuminuria as well as reduced glomerular filtration rate. It is very important to introduce public education about the relationship between diabetes and kidney disease. There is a remarkable lack of awareness among patients about their condition.

In our papers: *Chronic Kidney Disease: a Hidden Epidemic* [2] and *Public Health Aspects of Renal Disease in the Republic of Macedonia* 1983–2007 [3] we have shown a continuous increase in end-stage renal disease and renal replacement therapy (RRT) in the Republic of Macedonia. In 2002, we had 1,056 patients on RRT compared to 1,216 in 2005. In some dialysis centres 20% of the patients on haemodialysis are diabetics. Our message was that there is an urgent need for a screening programme for the detection of Chronic Kidney Disease (CKD) in the Republic of Macedonia. Health authorities, nephrologists and general physicians should collaborate on the detection of CKD.

"There is evidence that early therapeutic intervention in patients with chronic kidney disease or diabetes can delay the onset of complications and improve outcomes. For example, the UKPDS [4, 5], STENO-2 [6] and ADVANCE studies [7, 8, 9] all demonstrated that tight control of blood glucose level and blood pressure (and lipids in STENO-2) significantly reduced the incidence and progression of diabetic kidney disease. In people with type 2 diabetes, inhibition of the renin-angiotensin-aldosterone system using an angiotensin-converting enzyme (ACE) inhibitor or an angiotensin II receptor blocker (ARB) decreased the progression from normoalbuminuria to microalbuminuria [10] and slowed the development of ESRD [11]. Thus the use of an ACE inhibitor or ARB is now standard therapy for patients with diabetic nephropathy, as well as glucose, lipid and blood pressure control." [1]

How should we act now?

We are going to repeat our message from 2008 [2]: "there is an urgent need for a screening programme for the detection of CKD" and we will add as well as of diabetic kidney disease in the Republic of Macedonia.

We can follow the steps suggested by Atkins and Zimmet (1):

"(I) prevention of type 2 diabetes;

(II) screening for early diabetic kidney disease;

(III) increasing patient awareness of kidney disease;

(IV) using medications of proven strategy"

"The ultimate challenge is to get action from primary health care to all higher levels, from the individual patient, to those at risk, in various health jurisdictions, in all countries despite varying economic circumstances and priorities. The problem is a global one and yet requires action at a local level; prevention screening and treatment strategies; education, including increasing awareness both in diabetic patients and those at risk of developing diabetes; and health priorities and governments. Basic research and clinical trials searching for a new understanding and therapies must be supported." [1]

In our country we should work harder on the prevention of diabetic kidney diseases, to stop or postpone the development of CKD and chronic renal failure with modern therapy and the need for RRT.

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Резиме

КАКО ДА ЈА ПРЕВЕНИРАМЕ И МЕНАЦИРАМЕ ДИЈАБЕТСКАТА БУБРЕЖНА БОЛЕСТ ВО РЕПУБЛИКА МАКЕДОНИЈА

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Македонското здружение за нефрологија, дијализа, трансплантација и вештачки органи, Македонското здружение за нефрологија и Македонското здруже-

ние за ендокринологија и болести на метаболизмот и општите лекари одржаа еднодневен состанок на 11 март 2010 година во Македонската академија на науките и уметностите, посветен на превенцијата и третманот на дијабетичната бубрежна болест. Во Република Македонија има околу 100.000 пациенти со дијабетес мелитус тип 1 и 2; 85–95% имаат дијабетес мелитус тип 2. На инсулинска терапија се околу 28.000–30.000 пациенти. Во нашите трудови: *Chronic Kidney Disease: a Hidden Epidemic* [2] и *Public Health Aspects of Renal Disease in the Republic of Macedonia* 1983–2007 [3] покажавме континуиран раст на терминалната бубрежна болест и бубрежна заместителна терапија (БЗТ) во Република Македонија. Во 2002 година, имавме 1.056 пациенти на БЗТ споредено со 1.216 во 2005 година. Во некои центри за дијализа 20% од пациентите на хемодијализа се дијабетичари. Нашата порака беше дека има итна потреба за скрининг програма за откривање на хроничната бубрежна болест (ХББ) и ние сугерираме развивање стратегија за проверка на секој пациент со дијабетес мелитус во Република Македонија, за да се открие раната бубрежна дијабетична болест со скрининг за албуминурија, како и за редуцирана гломеруларна филтрациска стапка. Здравствените власти, нефролозите и општите лекари треба да соработуваат на откривањето на ХББ. Во нашата земја треба повеќе да работиме на превенцијата на дијабетичната бубрежна болест за да се спречи или да се одложи развојот на ХББ и хроничната бубрежна слабост со модерна терапија, како и потребата за БЗТ.

Клучни зборови: дијабетична бубрежна болест, хронична бубрежна болест, хронична бубрежна слабост, бубрежна заместителна терапија, скрининг програма, едукација.

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