



World kidney day 2015

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Kidney diseases are silent killers which can largely affect people's lifestyle and habits. To reduce the risk of kidney disease, the following recommendations are useful; monitoring blood pressure and blood sugar level, physical activity, weight control, healthy diet and fluid intake, not smoking, avoiding over-the-counter medications on a regular basis, and checking kidney function for any risk factors such as diabetes, hypertension, obesity, family history of kidney disease and checking whether the person is African, Asian, or Aboriginal. The goal of these recommendations is to increase the awareness of people about kidney and renal diseases, emphasis on important role of diabetes and hypertension in developing renal diseases, encouraging people with diabetes and hypertension to ask for periodic follow up and examinations, preventive behavior, training health care personnel about their key role in diagnosis and reduction of risk of chronic kidney disease, particularly in high risk patients and emphasis on the important role of regional and national health centers in controlling chronic kidney diseases.

Lack of attention toward prevention and treatment of kidney disease imposes a heavy cost on the health system. Life, economic and cultural conditions play a role in the incidence of renal disease. Adopting strategies for having a healthy lifestyle plays an important role in reducing the risk of kidney disease and the early diagnosis and treatment of chronic kidney disease can stop or slow its progress and reduce the incidence of related cardiovascular complications.

Chronic kidney disease is a global public health problem and it may remain undiagnosed or untreated in disadvantaged communities due to low resources, cultural, social and racial status of ethnic minorities. Of course, people who live in the countryside, women, elderly and ethnic, religious, and racial minorities are at risk of failing early diagnosis and treatment in a timely manner. Of course, the lack of diagnosis and treatment of chronic kidney disease in religious, ethnic and racial minorities is a concern in developed countries as well (1,2).

About 1.2 billion people live in extreme poverty worldwide and poverty has negative impact on people's healthy behaviors and lifestyle. These people are at risk of many diseases due to their low access to appropriate health care services clean water, adequate nutrition (3,4).

■ Implication for health policy/practice/research/medical education

Diagnosis and treatment of renal diseases in a timely manner are important. Assessing cardiovascular status (and risk factors such as smoking and lipid profile) is essential, because it has an important role in mortality. Also, due to the possibility of osteoporosis and its subsequent fractures, bone densitometry is important. If the glomerular filtration rate is less than 30 mL/min, and lower the patient should be referred to a nephrologist. The slogan of the world in 2015 on March 12, 2015, is to invite everyone to drink a glass of water and give one too to celebrate their kidneys. This is a symbolic gesture to remember that kidneys are vital organs and that they should be cared; it is a way to make people more conscious about their lifestyle choices.

In developed countries, incidence of end-stage renal disease is higher in cultural and ethnic minorities (traditional communities) and although the prevalence of early stages of chronic kidney disease among minorities is similar to the general population but the consequences of end-stage renal disease are 1.5-4 times more in African American, Hispanic and Native Americans (5).

In the UK, the rate of untreated end-stage renal disease is higher in ethnic minorities and socially deprived communities (6).

In Singapore, the prevalence of chronic kidney disease in Indian and Malay is more than Chinese (7).

Some studies in Iran indicated that prevalence of chronic renal disease varied in communities with different cultural and economic conditions (8,9).

The prevalence of end-stage renal disease is higher in indigenous population of every society due to several factors such as lifestyle, nutrition and lack of follow-up and treatment resulting from specific racial, cultural and ethnic beliefs (10).

In developing communities, the incidence of infectious diseases resulting from cultural poverty, lack of access to safe water, environmental pollution and pathogens play an important role in incidence of chronic kidney disease in low-income people. Despite the high incidence of diabetic kidney disease, chronic glomerulonephritis

and interstitial nephritis are among the major causes of chronic kidney disease in many countries. Of course, HIV-induced nephropathy is also one of the causes of chronic kidney disease in Africans (11).

Some studies indicated the role of low birth weight in incidence of chronic kidney disease (12).

A recent data shows that, there were 2.6 million people on dialysis in 2010, 93% in high or upper middle-income countries. On the other hand, the number of patients who need dialysis is between 4.9-9 million, i.e. at least 2.3 million people are at risk of mortality due to lack of access to dialysis. By 2030 the number of people who will need dialysis increase to 5.4 million most of which will be in developing countries of Asia and Africa (13).

People's access to dialysis depends on health care cost and economic status of countries. In Latin America, access to dialysis correlates significantly with gross national income and health expenditure. In India and Pakistan, the access to dialysis is less than 10% (14).

Access to dialysis is lower in traditional and indigenous communities which will increase the complications of chronic kidney disease. In a multi-central study transplant rates in natives of Australia and New Zealand was 77% less than general population and in Canadian natives was 66% lower (15).

One of the factors that reduce people's access to alternative treatments is poverty. Due to the expensive treatments for end-stage renal disease many people have become poorer, because this disease not only leads to high costs, caused job losses and interruptions in education of children but also reduces the available resources (16).

The number of patients with end-stage renal disease is rising and every 10 years, it will increase two-fold. The rate of mortality of patients with chronic renal disease has decreased since 2000, however patients mortality in the first year of disease is high. Nosocomial infections such as pneumonia, sepsis, as well as vascular access in these patients remain a concern. Applying preventive measures such as influenza vaccine and other vaccines has increased however its coverage is only 60%. The important point in this group of patients is training about how to care for vascular access, the risk of cardiovascular diseases, diet and follow-up (17).

Summary

Diagnosis and treatment of renal diseases in a timely manner are important. Assessing cardiovascular status (and risk factors such as smoking and lipid profile) is essential, because it has an important role in mortality. Also, due to the possibility of osteoporosis and its subsequent fractures, bone densitometry is important. If the glomerular filtration rate is less than 30 mL/min, and even lower patient should be referred to a nephrologist.

Diagnosis and treatment of diseases are important but prevention is the preferred method. Preventive measures should not be neglected. Control of blood pressure, blood sugar level, physical activity, diet, quitting smoking, avoiding over-the-counter medications specially

nonsteroidal anti-inflammatory drugs on a regular basis, and consumption of fluids play a major role in the prevention of kidney disease. The slogan of the world in 2015 on March 12, 2015, is to invite everyone to drink a glass of water and give one too to celebrate their kidneys. This is a symbolic gesture to remember that kidneys are vital organs and that they should be taken care of; it is a way to make people more conscious about their lifestyle choices.

Authors' contributions

All authors wrote the manuscript equally.

Conflict of interests

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