Editorial

Awareness, Prevention and Risk Factors of Chronic Kidney Disease

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Editor

Chronic kidney disease (CKD) has emerged as one of the most prominent causes of death and suffering in the 21st century.

Non-communicable diseases (NCDs) present a significant global health challenge in the current century and have replaced communicable diseases as the most common causes of morbidity and premature mortality worldwide[1]. Initially, four NCDs (cardiovascular disease, cancers, chronic respiratory diseases and diabetes) were prioritized in the Global NCD Action Plan[2] endorsed by the World Health Assembly in 2008 but systematic reviews of various population based studies have now revealed the significance of chronic kidney disease as a separate entity requiring emphasis on prevention, early detection and treatment[3,4].

In developing countries including Pakistan, the burden of CKD is growing[5] and is exacerbated due to poor community awareness, a disproportionately higher burden of known CKD risk factors and poor access to renal replacement therapy[6].

Nearly 850 million people in the world have some sort of kidney disease and about five to 10 million people currently either require dialysis or kidney transplantation. Estimates suggest that if the global burden of kidney diseases keeps increasing, it would be one of the leading causes of mortality in the world by 2040.

Kidney diseases are silent killers, which can largely affect your quality of life. There are several ways to reduce the risk of developing kidney disease.

Keep fit, be active; Regular workouts keep your body functioning well and help prevent various diseases, including heart diseases and obesity (the risk factors of kidney disease). It also helps in maintaining normal blood pressure levels. According to the National Health Service, healthy adults should aim at about 150 minutes of moderate-intensity workout in a week, if you don't exercise at all, start with 20 minutes of light exercise. Some of the exercises that you can do are brisk walking, jogging, cycling and swimming.

Eat a healthy diet; This can help to maintain an ideal body weight, reduce your blood pressure, prevent diabetes, heart disease and other conditions associated with chronic kidney disease. It will be easier to control your salt intake. You make sure that you have plenty of veggies, fresh fruits, and whole grains that provide you with all the macronutrients (carbs, proteins and fats) and micronutrients (minerals and vitamins).

Check and control your blood pressure and blood sugar levels; High blood pressure and diabetes are two of the most common underlying conditions for kidney diseases. If you have either of the diseases or if you are at risk of developing them, say from family history, it is important to keep watch on your blood pressure and blood sugar levels. Your blood pressure should be below 140/90 mm hg and your fasting blood sugar levels should be below 99 mg/dl.

Take appropriate fluid intake; Water helps kidneys in filtering out all the waste from the body. It also ensures that your kidneys get proper blood supply. So, if you tend to be dehydrated often, you might get kidney damage. Now, most people are told to drink at least 8 to 10 glasses of water per day. However, according to the National Kidney Foundation, the number may vary as per your age, physical activity, the climate around you and your health condition. For example, patients who are on dialysis are often told to reduce their water intake since their kidneys are not filtering excess water. Excess water may lead to a reduction in sodium levels in the body, which may also negatively affect your health. Men are generally recommended to take about three liters of fluid through the day and women should take about 2.2 liters of fluid per day.

Avoid Smoking; Smoking slows the flow of blood to the kidneys. When less blood reaches the kidneys, it can decrease their ability to function normally. Smoking also increases the risk of kidney cancer by about 50 per cent.

Avoid excessive use of pain-killers; Excess use of pain killers can increase the risk of chronic kidney disease. If you have low blood pressure or are dehydrated, some of these pain killers can also lead to acute kidney injury.

Have your kidney function checked if you have one or more of the 'high risk' factors; if you have diabetes, if you have hypertension, obese and have a family history of kidney disease.

Kidney damage or decreased renal function for three months or more is clinically considered as chronic kidney disease (CKD)[7]. Several countries have listed CKD as one of the top five causes of mortality in 2015, according to the Global Burden of Disease report[8]. In Pakistan, prevalence of it is reported to be in between 12.5% to 31.2%[9]. The prevention of CKD is less costly as compared to its treatment and leading comorbidities[10.11]. CKD is a major public health concern that affects people all over the world. CKD has a direct impact on the worldwide burden of morbidity and mortality because of its effect on cardiovascular risk and end-stage kidney disease[12].

Disease knowledge and awareness are critical educational components that can aid individuals in

improving their ability to control their own health. CKD self-care is complicated and requires patients to keep track of their disease (e.g., monitoring their blood pressure and weight as well as their body temperature and cholesterol level), fluid intake management, and diet; engage in physical activity; adhere to medication regimens; comprehend new information; and communicate with health-care practitioners and other patients.

A higher prevalence of chronic kidney disease is also associated with social deprivation[13]. There were correlations observed between risk factors for chronic renal disease, such as smoking, drinking alcohol, increasing belly circumference (obesity), and elderly awareness of the condition[14].

Hypertension is the strongest cardiovascular risk factor worldwide and is also closely associated with CKD.[15] The prevalence of CKD among hypertensive US adults was 35.8% in 2011 to 2014, compared with a prevalence of 14.4% in prehypertensives and 10.2% among nonhypertensive individuals.[16] A significant association between hypertension and the prevalence of CKD was also reported in a meta-analysis that included 75 global studies.[17]

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