World Kidney Day (WKD) is organized yearly to raise awareness of the impact on morbidity and mortality of chronic kidney disease (CKD) and to limit the burden on healthcare systems worldwide. The epidemiology of CKD is complex and associated risk factors are constantly evolving. A significant proportion of the general population is unfamiliar with the risk factors leading to CKD. The specific objective of the 2015 WKD was to highlight the global inequality of knowledge on CKD and to stimulate access to treatment for everyone. We wanted to contribute to the spreading of this message to the general public as well as policy makers to encourage prevention and to promote global equality.

The objective of this study was to evaluate and stimulate the awareness on the risk factors of CKD and their impact on morbidity and mortality. We also wanted to evaluate the potential evolution in general knowledge by comparing the current results with our previous screening on WKD 2010.

We performed an anonymous screening in the lobby of our hospital on WKD 2015 like we did on WKD 2010 (1). The screened population was composed of passers-by (employees, visitors of hospitalstaff, patients and outpatients) of the hospital. People were invited to have their blood pressure (BP) and blood glucose measured by trained nurses under standardized conditions. Information on personal and familial history of diabetes (DM), hypertension (HT) and CKD was gathered. Participants were asked about their smoking habits, and how they estimate their actual weight (normal, overweight or obese). Educational information regarding causes and prevention of CKD was handed out. We compared the results of 2015 with those of 2010.

336 subjects were screened. The most frequently self-reported risk factor for developing CKD was overweight, followed by HT, smoking, and diabetes. Significantly more men than women were smokers. A family history of HT was reported in more than 40% of the participants.

Hypertension

Women had a significantly lower mean BP and lower mean BMI than men. Importantly, 50% of participants was hypertensive but only 27.7% was aware of this. Of the 75 patients with known HT, only 24 (32%) had a well-controlled BP. Self-reported hypertensive patients had a higher mean systolic and diastolic BP (resp. 148 ± 22 mmHg and 88 ± 12 mmHg) than their ‘normotensive’ counterparts (resp. 131 ± 19 mmHg and 81 ± 11 mmHg) despite antihypertensive treatment.

Diabetes

The prevalence of self-reported DM was 9.6%. In five subjects (1.5%) previously unknown diabetes was detected and respectively 37 (11%) and 18 (5.4%) participants had an impaired fasting glucose or an impaired glucose tolerance. Consequently, more than 16% of the screened persons were at risk to develop overt diabetes.

BMI

Mean BMI was 25.6 kg/m², 35.1% of the screened population was overweight and 17.9% obese. Men were significantly more overweight than women (57.2% vs 42.1%). Of the 211 persons who reported to have a normal weight, 5 (2.4%) were obese and 40 (19.4%) were overweight.

Comparison 2010 – 2015

In 2010 we screened 325 subjects. Compared to the current results, the prevalence of most self-reported conditions increased slightly, without reaching significance. Mean BP, glucose level, and BMI were not significantly different. Blood pressure control in self-reported hypertensive persons significantly improved from 25.4% to 32%.

Conclusions

- Screening during World Kidney Day in 2015 revealed that many persons are at risk to develop chronic kidney disease due to a high prevalence of HT, uncontrolled BP despite treatment, overweight, and smoking.
- A significant proportion was previously unaware of their risk.
- Five subjects with previously unknown diabetes mellitus were detected.
- Twenty-four percent underestimated their BMI.
- Compared to the data of the 2010 screening, risk factors like obesity, hypertension and diabetes remained prevalent.
- Despite all the efforts of awareness campaigns, risk factors for CKD continue to be an important healthcare problem.