to learn more about risk factors and detailed infection route circumstances.

Conflict of interest statement. None declared.

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High risk of chronic kidney disease: results of the screening during World Kidney Day 2010

The aim of World Kidney Day (WKD) is to raise awareness of the importance of the kidneys to the overall health and to reduce the frequency and impact of kidney disease and its associated health problems worldwide. The objective of the 2010 WKD was to highlight that diabetes and high blood pressure are key risk factors for developing chronic kidney disease (CKD).

We therefore organized an anonymous screening in the lobby of our hospital during WKD. The screened population was composed of passers-by (employees, visitors of hospitalized patients and outpatients) of the University Hospital of the Free University of Brussels. They were invited to have their blood pressure (BP) and blood glucose measured by trained nurses and under standardized conditions. We also gathered information on personal and familial history of diabetes (DM), hypertension (HT) and CKD. Participants were asked about their smoking habits and how they estimate their actual weight (normal, overweight or obese). Educative information regarding causes and prevention of CKD was distributed.

Hypertension was defined as a BP of at least 140 and/or 90 mmHg. Controlled BP was defined as a BP <140 and <90 mmHg. Diabetes and impaired glucose tolerance (IGT) were defined as a blood glucose level of at least 200 mg/dL and between 140 and 200 mg/dL, respectively, in patients with no known diabetes.

In total, 325 people were examined (Table 1), of these 56% were women. The most frequently self-reported risk factor for developing CKD was excess weight, followed by HT and smoking. Excess weight was significantly more prevalent in men than in women. Self-reported diabetes was present in 6.2% of the studied persons. Significantly more men belonged to the older age group. Women had a lower systolic BP and had more frequently a controlled BP, when treated.

The prevalence of self-reported hypertension was 20%, but the prevalence of hypertension increased to 54% if we also took into account the 108 patients with a high BP who were unaware of an elevated BP. The prevalence is comparable with commonly reported values worldwide especially in the Belgian adult population [1–4]. Also, the percentage of patients (43%) unaware of their hypertensive status were very similar to previously reported values [4]. Of the 63 pa-

| Table 1. Characteristics of participants |
|--------------------------------------|
| n (%) | n (%) | n (%) |
| Hypertension | 66 (20.3%) | 24 (24.2%) | 30 (16.3%) | NS
| Diabetes | 20 (6.2%) | 7 (7.1%) | 10 (5.4%) | NS
| Excess weight | 78 (24%) | 27 (23.7%) | 41 (22.8%) | NS
| Smoking | 66 (19.7%) | 17 (17.2%) | 46 (24.4%) | NS
| Age >50 years | 137 (42.2%) | 54 (54.5%) | 81 (43.9%) | NS
| Kidney disease | 7 (2.2%) | 1 (1%) | 6 (3.1%) | NS
| Family history, DM | 102 (31.4%) | 28 (28.3%) | 72 (37.0%) | NS
| Family history, KD | 84 (25.8%) | 23 (23.2%) | 60 (31.4%) | NS

Mean (SD)

| SBP (mmHg) | 138 (21) | 142 (20) | 135 (20) | <0.01
| DBP (mmHg) | 82 (13) | 83 (12) | 81 (13) | NS
| PP (mmHg) | 56 (16) | 59 (17) | 54 (16) | 0.01
| Glocemia (mg/dL) | 107 (30) | 106 (30) | 105 (28) | NS

BMI (kg/m²)

| <20 | 27 (8.5%) | 5 (5.1%) | 19 (10.6%) | <0.01
| 20–25 | 146 (45.8%) | 36 (36.4%) | 67 (48.6%) | NS
| 25–30 | 104 (32.6%) | 48 (48.5%) | 46 (25.7%) | <0.01
| >30 | 42 (13.2%) | 10 (10%) | 27 (15.1%) | NS

SBP target | 137 (45.7%) | 42 (42.9%) | 92 (48.7%) | <0.02
| DBP target | 235 (74.4%) | 67 (68.4%) | 139 (75.9%) | NS
| BP target | 161 (50.9%) | 39 (39.8%) | 101 (55.2%) | <0.03

P is the difference between men and women.

*Self-reported condition.
Patients with known hypertension, only 16 (25%) had a controlled BP. This low BP control rate in the Belgian population has remained stable for many years despite the efforts of many physicians, which is rather disappointing. Several subject-related factors may be partly responsible for this bad result. For example, male sex and weight excess were significantly associated with less BP control (respectively, OR 0.441, 95% CI 0.200–0.969; 0.415, 95% CI 0.202–0.851 for obesity and 0.558, 95% CI 0.334–0.933 for overweight), whereas younger age (<50 years of age) was associated with more controlled BP (OR 2.294, 95% CI 1.453–3.622).

The prevalence of self-reported diabetes was 6.2% and very similar to previously reported values [4]. Two unknown diabetes patients were detected (i.e. one unknown for 10 known diabetes patients), and 25 participants with no known diabetes (7.8%) had an impaired glucose tolerance.

According to the Belgian Institute of Public Health (IPH) [5], the mean BMI of the adult population in 2008 (age >18 years) was 25.3 kg/m² (vs. 25.5 kg/m² among the present hospital visitors). Furthermore, 33% of the Belgian adult population had a BMI >25 kg/m² and 14% >30 kg/m² (respectively, 32.6% and 13.2% in our studied subjects). BMI was significantly higher among the age >50 years of age in patients than among the <50 years of age group (26.1 ± 4.4 kg/m² vs. 25.0±5.0 kg/m², P<0.05). Only three subjects reported having excess weight, while their BMI was normal. More alarming was the fact that 72 patients reported not being overweight at all, while their BMI was markedly elevated.

Self-reported hypertensive patients had, despite antihypertensive treatment, a higher mean systolic BP (152 ± 19 mmHg) than their normotensive counterparts (134 ± 20 mmHg, P<0.01), a higher BMI (27.7±5.2 vs. 24.9±4.4 kg/m², P<0.0001), belonged more frequently to the older age group (P<0.0001), had more IGT (P<0.01), more self-reported diabetes (P<0.005) and more self-reported CKD (P<0.02).

The most recent (2009) data from the ‘Flemish League against Cancer’ on tobacco use in Belgium indicate a 32% prevalence for active smoking in the adult population (≥15 years old), whereas ‘only’ 19.7% of the people studied reported being active daily smokers [6]. The prevalence of active smoking in Belgium is indeed increasing, especially in the male population, despite the recent restrictions forbidding smoking in restaurants, public places and the workplace.

**Conclusions**

Screening during World Kidney Day revealed that many people are at risk of developing chronic kidney disease due to a high prevalence of hypertension, uncontrolled blood pressure despite treatment, weight excess, smoking and diabetes. In addition, ~10% were diagnosed as having impaired glucose tolerance.

Further systematic screenings for renal risk should be carried out, which would likely generate data that can motivate citizens and authorities to promote lifestyle changes to reduce the burden of chronic kidney disease.