

physical activity and overweight/obesity was associated with HTN in this large population-based study.

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Lifestyle and cardiometabolic risk among primary school children of Oran



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Background The increase in the prevalence of overweight and obesity among young people led to a surge in several risk factors, such as high blood pressure, dyslipidemia and abdominal adiposity, leading to metabolic syndrome and atherosclerosis.

Purpose The aim of the study was to assess food consumption and physical activity level (PAL), in children on the one hand, and to evaluate the cardio-metabolic risk on the other hand.

Population and methods Children ($n=222$, sex-ratio F/M=106/116) in the city of Oran, 7 to 10 years old were recruited. Dietary survey was carried out by 24 hours recall, followed by 3-day record. PAL, anthropometric parameters, and blood pressure (BP) were measured. Glycaemia, lipid profile, uric acid, albumin, creatinine, urea, leptin and adiponectin were determined in serum.

Results Children were classified according to the body mass index (BMI) into four groups, according to the International Obesity Task Force (IOTF) references: normal-weight (NW) 63%, overweight (OW) 19%, obesity (O) 8.5%, and underweight (UW) 9.5%. Increased BMI, waist circumference ($P=0.01$) and weight ($P<0.05$) were observed in OW and O groups, compared to NW. PAL study revealed that OW were sedentary ($1.40 < PAL < 1.69$) and O were extremely inactive ($PAL < 1.40$). Dietary survey revealed a total energy intake (TEE) of 2008, 2211, 2567 and 1780 Kcal/day for NW, OW, O and UW, respectively. Qualitatively, lipids consumption, in particular saturated fatty acids, was high at the expense of complex carbohydrates in O. Systolic and diastolic BP were increased in OW and O groups, compared to NW ($P<0.05$) group. An increase in total cholesterol, LDL-cholesterol, triglycerides and uric acid values was observed in OW and O compared to NW groups ($P<0.05$). A positive correlation was noted between BMI and serum leptin levels ($r=0.89$; $P<0.001$) on the one hand, and an inverse relationship was observed between BMI and serum adiponectin values ($r=-0.49$; $P<0.01$).

Conclusion This study highlights the presence of increased cardio-metabolic risk in overweight and obese children, requiring nutritional education, and a monitoring of their health status.

Disclosure of interest The authors declare that they have no competing interest.

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Self-screening of excessive salt consumption and the risk of hypertension in a population of bakery employees in France: PREDIC-HTA-Bakery study



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Objective One of the modifiable risk factors for hypertension is excessive salt intake. In France, excesses are due to the consumption of bread, meats and cheese. The ExSel[®] test was designed and validated to detect excessive salt consumption. In the PREDIC-HTA survey The ExSel[®] test was administered on a large scale in a population of employees.

Method The PREDIC-HTA survey is observational and multicenter and was conducted from June 2017 for a duration of one year. One thousand screening kits comprising a tablet with the PREDIC-HTA application and a connected electronic sphygmomanometer were delivered for a period of one week in turn in the 12 000 bakeries in metropolitan France. On a voluntary basis, employees of bakeries had the use of PREDIC-HTA at the workplace. The application included the filling of standardized health questionnaires including demographic characteristics, BP risk factors and the ExSel[®] test, which includes five questions concerning bread (Q1), delicatessen (Q2) and cheese (Q3), prepared meals (Q4), and broths and flavor enhancers (Q5). The anonymous data was transferred to a secure database allowing the secondary implementation of epidemiological analyzes.

Results 6572 subjects were included in the study. Of the participants, 31% (95% CI: 29.9, 32.2) had a score indicating excess salt intake. ExSel[®] test responses were as follows: Q1 50.6%, Q2 50.1% (among those under 35 years of age 43.4% (95% CI: 41.6, 45.2) and among over 55 years 56.9% (95% CI 53.3, 60.4), Q3 43.1%, Q4 52.3% (among those under 35 years 63.1% (95% CI: 61.3; 8) and in the over-55s 27.1% (95% CI: 24.0, 30.3), Q5 42.8% Excess salt intake decreases with age, by 32.7% 95% CI 31.1, 34.5 (under 35 years) to 22.5% (95% CI 19.7, 25.7) (over 55 years). Of the subjects never treated with antihypertensive agents, 50.8% (95% CI 49.3, 52.3) had a low risk of hypertension at 5 years, 36.9% (95% CI: 35.4, 38.3) had a possible risk, and 12.3% (95% CI). %: 11.4, 13.4) were at high risk. Among the treated patients, the prevalence of non-blood pressure control (BP > 140/90) was 53.3%.

Conclusion In a bakery workforce, almost a third of the cohort is suspected of excessive salt intake and 49.2% had a possible or high risk of hypertension at 5 years. The differences in eating behavior call for adapting prevention messages to excessive salt intake in order to participate to the prevention of hypertension in the French population.

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Socio-economic consequences of high blood pressure: Quality of life and socio-economic transformations of patients



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