and operator's experience. The pOpmètre® is a device validated in adults which rapidly measures finger-to-toe PWV using 2 oxymeter-like sensors.

Purpose Our objective was to demonstrate the value of the pOpmètre® in children by comparing pOpmètre® to SphygmoCor® PWV measurements.

Methods This prospective study enrolled 60 children aged between 4 and 8 years old with a 1 sex ratio from the Nantes University Hospital. Bland and Altman method was used to compare pOpmètre® and SphygmoCor® PWV in a training group and in a validation group. The primary endpoint was reached if the 95% confidence interval (95%CI) of the mean PWV difference was between − 0.450 and + 0.450.

Results The mean pOpmètre® PWV (PWVpop) was 3.919 ± 0.587 m/sec and the mean SphygmoCor® PWV was 4.280 ± 0.383 m/sec in the training group (n = 26), with a difference of − 0.362 (95%CI: − 0.546— − 0.178). A new algorithm was defined using transit time (TTpop): corrected PWVpop (m/sec) = 0.150/TTpop (sec) + 1.381 * Height (m) + 1.148. It was tested in the validation group (n = 24): the mean corrected PWVpop was 4.231 ± 0.189 m/sec and the mean SphygmoCor® PWV was 4.208 ± 0.296 m/sec with a corrected difference of 0.023 (95%CI: −0.086—0.131).

Conclusion After algorithm correction, we found a good agreement between PWV measured by the SphygmoCor® and the pOpmètre® which seems more appropriate in young children.

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

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Cardiovascular Risk Factors in Renal Transplant Patient

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Introduction and aim Cardiovascular mortality among renal transplant patients remains significantly higher than that of the general population. The aim of our study was to evaluate the frequency and characteristics of cardiovascular risk factors in renal transplant patients at the Tlemcen University Hospital.

Patients and Methods We performed a descriptive retrospective study of 100 renal transplant patients from living donors from 2007 to 2017. Hypertension was defined as systolic blood pressure > 130 mmHg and/or diastolic blood pressure > 80 mmHg and/or taking an antihypertensive treatment. Overweight was defined as BMI > 25 kg/m2, diabetes by two fasting blood glucose > 1.26 g/L, dyslipidemia as LDL cholesterol level > 1,3 g/L.

Results The mean patients' age was 34.1 years old, [range: 6—54], sex ratio: 1.76. The mean creatinine clearance was 144.65 μmol. The prevalence of hypertension post-transplantation was 31.8%. A strong correlation was found between cyclosporine and hypertension; 38.4% of patients had a BMI > 25Kg/m^2. Dyslipidemia and hyperuricemia were found in 28% and 18.6% of patients respectively. Fifteen percent developed diabetes after a mean post-transplant period of 7.2 months; 54.1% of diabetics had a metabolic syndrome before transplantation and 57% had a family history of diabetes. A strong correlation was found between diabetes and Tacrolimus. Four patients died with a functional graft.

Discussion The prevalence of hypertension (31.8%), dyslipidemia (28%) and hyperuricemia (18.6%) in our series were significantly lower than those previously reported in kidney transplant patients. The reason could be a lower patients' age in our study, a better graft function (grafts from living donors), or perhaps the choice of immunosuppressive drugs: 76% of our patients received Tacrolimus; actually, it is currently accepted that Tacrolimus causes less hypertension and dyslipidemia than cyclosporine.

The prevalence of post-graft hypertension was higher in patients having hypertension before transplantation, indeed pre-existing hypertension is an independent risk factor for the occurrence of post-transplant hypertension, hence underlining the importance of ensuring optimal dialysis for patients who are candidates for transplantation.

More than 1/3 of patients had overweight. Indeed, dietary management is recommended in the grafted patient, in order to maintain the BMI below 25 kg/m^2.

About 1/3 of our recipients have metabolic complications (diabetes, dyslipidemia) associated with hypertension increasing the cardiovascular risk in these patients, knowing that the annual rate of death or cardiovascular events is 50 times higher in transplant recipients compared to the general population.

Conclusion The transplant population has multiple cardiovascular risk factors. Early detection and correction of these factors must be a priority in order to improve the survival of these patients.

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

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Use of biomarkers for prognosis cardiovascular risks

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Background and aim The major risk factors for cardiovascular disease (CVD) are: age, male gender, hypertension, diabetes mellitus, dyslipidemia and smoking. Strong evidence also exists for lack of physical activity, obesity and alcohol intake. However, over 35% of CVD occurs among those without any known risk factors. The ongoing search for novel markers is inspired by this discrepancy and the need to better portray future cardiovascular risk, such that preventive and therapeutic interventions can be more effectively and also by the opportunity to discover new targets for intervention. The aim of this research was to study some biomarkers to the future development of CVD.

Methods Our study was performed among 481 people aged 40—65 years (347 with high risk of CVD, SCORE = 5—10% and 134 control subjects). Some biochemical markers: CK- MB, FABP4, NT Pro BNP, VEGF were tested. Evaluation of differences was performed using nonparametric tests. For each marker, ROC-curve was plotted and the area under the ROC curve (AUC) was calculated.

Results The plasma levels of markers in both groups were compared, they all showed statistically significant differences (P < 0.05). The AUC can be used as a criterion to measure the test's discriminative ability. According to our results the greatest diagnostic significance belongs to the SK-MB marker. However, the AUC value for this marker was 0.615 (95%CI: 0.564—0.666) and its diagnostic abilities was poor. In this case, the optimum sensitivity value is 53.7%, and specificity 66.4%.

Conclusion The creatinine kinase marker (CK-MB), found in the serum during inflammatory and degenerative muscular diseases, was the most informative studied biochemical markers for predicting the CVD.

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

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