Reviewer's report

**Title:** High blood pressure prevalence and associated factors in a North African adolescent population. A national cross-sectional study in Tunisia

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**Reviewer:** Decio Mion

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The main objective of this cross-sectional study was to evaluate the blood pressure of Tunisian adolescents, and investigate several associated factors. After analysis, the authors found interesting results: Hypertension was present in 4.7% of adolescents. The mean systolic and diastolic blood pressure (BP) was higher in male group, and the prevalence of high BP was also higher in this group. There was a significant association of body mass index (BMI) and waist circumference (WC) with BP elevation in adolescents of both genders. Multivariate analysis showed that hypertension was more frequent among boys with a high economic level and sedentary lifestyle. For girls, hypertension was more frequent among non-attending school girls and those who skipped daily meals. The authors conclude that adolescents from Tunisia, especially those overweight and obese, also have premature high blood pressure.

The manuscript is well written, clear, with appropriate size, bringing important results. In fact, data from other studies showed that BMI and WC are good predictors of the risk for hypertension in adolescents. However, the demonstration of the same pattern in Tunisia, a country undergoing nutritional transition, reinforces the importance of this public health problem. BP elevation in adolescents may be a warning sign of future cardiovascular risk.

**Title and Abstract -** The title is good, indicating the study’s design and the population studied. The abstract describes the relevant data of methods and results.

**Introduction -** The authors explain the scientific background and rationale for the investigation being reported, when describing the prevalence of hypertension, obesity and overweight in the adult population of Tunisia, and show the importance of studying the adolescent population. The question is well defined.

**Methods and Subjects -** Well described and detailed.

**Results -** The results section is quite clear as well as tables. The authors separated the results of univariate and multivariate analysis, making clear understanding by the reader.

**Level of interest:** An article of importance in its field.
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.