Reviewer's report

Title: Association of hypertension with physical factors of wrist pulse waves using a computational approach: a pilot study

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Reviewer: DongHyun Nam

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Major Compulsory Revisions

1. It is well known that pulse pressure in hypertensive is higher than in normotensive. PPI corresponds to pulse pressure. What is new?

2. In almost all prediction models, increase in the number of independent variables enhances the predictive power. Is it one of the characteristics of the pulse that the predictive powers of combined physical factors were higher than those of the only PPI? The authors should formulate hypotheses, even though they couldn’t be evincible, about relationships between the combined physical factors and hypertension.

3. In this study areas of pulse power spectrum density were used as predictive independent variables. Why don’t you consider that relationships between BP and area of PSD may not cause-and-effect but effect-and-effect from the same cause?

4. I can’t agree with the authors’ opinion that pulse strength implies the degree of the blood vessel resistance against the pressing force to the radial artery. Do the authors claim that pulse strength is one of inverse indicators of vascular compliance?

5. When BP in a wrist is compared with that in the other wrist, the author should also describe the dominance of the arm. It is well known that BP in a dominant arm is higher than that in the other arm. I wonder whether or not the differences result from the dominance of the arm.

6. I cannot accurately understand what meant Sum-30p, Sum-30p-PPI, Sum-1.12v and Sum-1.12v-PPI. Addition of drawings in more detail may make readers help to understand definitions of the factors.

Discretionary Revisions

Discussion is too long. Please describe the only information directly related to results of this study.

Level of interest: An article of limited interest

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.