



P61 Comparison of Two Oscillometric Technics for Measuring Pulse Wave Velocity

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ABSTRACT

It has been proven that aortic pulse wave velocity (aoPWV), the measure of arterial stiffness is a strong and independent predictor of both cardiovascular events and all-cause mortality. Beyond the “gold standard” cfPWV (carotid-femoral) a plenty of methods are available for measuring PWV but the interpretation of their results are problematic and not interchangeable.

Patients and Methods: Our aim was to assess the association and agreement of two oscillometric methods; the upper arm-cuffed invasively validated Arteriograph system and the brachial-ankle PWV (baPWV) measurement employed by the automatic BOSO-ABI system which operates simultaneous cuff-measurements on both extremities. 157 apparently healthy individuals of both sexes (mean age was 44.3 + 9.3 ys; 54 male and 103 female) were examined in this study.

Results: Mean PWV was significantly higher with BOSO (11.76 + 1.52 m/s) than Arteriograph (8.45 + 1.71 m/s). The two different measurement modalities demonstrated moderate linear correlation (The Pearson's test of correlation coefficient $r = 0.391$, $p < 0.001$). The lack of agreement between the two methods is confirmed also by the Bland-Altman plot.

Conclusion: Both methods are simple and easy to use and offer a user independent automatic assessment of PWV. The difference of the measured values derived from the different path length the two methods use.

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