Comparison of the Automated Oscillometric Method With the Gold Standard Doppler Ultrasound Method to Access the Ankle-Brachial Pressure Index

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Résumé en anglais: Objective: Despite its screening interest, the ankle-brachial pressure index (ABPI) remains uncommon in general practice, because it needs training and specific devices as Doppler. Easier methods such as the use of automated oscillometric devices may facilitate the peripheral arterial diseases (PADs) screening. We wanted to assess the reliability of the automated oscillometric measurement of the ABPI, compared with the gold standard Doppler ultrasound measurement. Patients and Method: In 287 patients aged 65 years or older without diagnosed PAD, we performed ABPI measurements with oscillometric and Doppler devices. Reproducibility was assessed by the intraclass correlation coefficient of agreement (R) and the Bland and Altman method. Results: The intermethod reliability was bad (R = .346, 95% CI = (0.268-0.420)), with a large confidence interval of the individual differences between the 2 methods: 95% CI = (—0.183-0.346). Conclusion: Automatic oscillometric devices cannot be recommended as reliable methods for ABPI measurement.


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