Reviewer's report

Title: Ankle Blood Pressure as a Predictor of Total and Cardiovascular Mortality

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Reviewer: Curt Diehm

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Hietanen and colleagues analyzed the prognostic implications of isolated ankle blood pressure measurement without indexing the ABI.

They have shown that the ankle blood pressure has an independent value as a marker of subclinical atherosclerosis in middle-aged, asymptomatic patients.

The clinical background of measuring isolated ankle blood pressure is unclear to me. Blood pressure screening is one of the basic investigations in primary care. Thus, if ankle pressure is measured in addition, ABI can be easily calculated and ABI at rest represents an excellent measurement tool predicting cardiovascular mortality in primary care. The present measurement protocol, as described by the authors, bears a significant disadvantage: the need for an exercise test. Hence, patients with a history of symptomatic atherosclerosis have to be excluded from this test, precluding further risk stratification in this important subgroup of patients in primary care.

While the paper is well conducted from a study design and statistical point of view, it is in its current version not suitable for publication in BMC Cardiovascular Disorders.

Abstract:

The methods section needs to be more elaborated on. Please provide details on how mortality was assessed and which statistical approach was taken.

Results:

The results section is too lengthy and should be substantially shortened. Results that are outlined in tables should not be repeated in the text.

Discussion:

As outlined by the authors, patients with myocardial infarction, PTCA, CABG, congestive heart failure or stroke were excluded from the present analysis. This points at a substantial shortcoming of the method proposed that excluded many patients with history of symptomatic atherosclerosis that can easily be captured using an ABI test. Furthermore, since blood pressure screening is widely performed by practitioners anyway, what should be the additional value of the present test? What does this test add to the practical approach in identifying
patients at increased cardiovascular risk?
This should be outlined in the discussion.