



BioMed Research International

Special Issue on
Recent Advances in the Measurement of Arterial Stiffness and Central Blood Pressure

CALL FOR PAPERS

Cardiovascular (CV) diseases are the leading cause of morbidity and mortality in numerous countries worldwide. Arterial stiffening is increasingly recognized as an independent risk factor and mediator of CV mortality. Carotid-femoral pulse wave velocity (PWV) is the most accepted noninvasive arterial stiffness parameter and in Europe among hypertensive patients it is already a recommended method for cardiovascular risk assessment. Most of the devices measuring PWV are also able to provide noninvasive central blood pressure values which might also add information to reclassify patients in the future and improve therapeutic targets. Other parameters which are derived from central blood pressure, like central pulse pressure or pulse pressure amplification, are also proven to have prognostic values in different patient populations. In spite of the cumulating data, more information is needed about these parameters to become endpoints of a clinical intervention and little is known about the cost-effectiveness.

With technology advance new methodologies are already available for arterial stiffness measurement, which on one part can simplify the procedure, but on the other hand these new technologies give only approximations but not identical to the “gold-standard” ones in respect of the measured parameters, generating further questions. Recently, 24-hour arterial stiffness monitoring devices were also introduced providing a new tool for clinical studies.

The purpose of this special issue is to publish high-quality research papers as well as review articles addressing recent advances in arterial stiffness and central blood pressure measurement. Original, high quality contributions that are not yet published or that are not currently under review by other journals are sought.

Potential topics include, but are not limited to:

- ▶ Pathophysiology of arterial stiffening
- ▶ New technologies or models for arterial stiffness and central blood pressure measurement
- ▶ Validation studies of new devices
- ▶ Prospective studies to obtain the predictive value of different arterial stiffness parameters
- ▶ Comparison of the predictive value of arterial stiffness and central blood pressure parameters and their derivatives with robust cardiovascular event predictors, like age, pulse pressure, ankle-brachial index, or carotid intima-media thickness
- ▶ Interventional tools to decrease arterial stiffening and central blood pressure
- ▶ 24-hour arterial stiffness and central blood pressure monitoring data
- ▶ Cost-effectiveness studies about these new methodologies

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/cardiology/astiff/>.

Lead Guest Editor

János Nemcsik, Semmelweis University,
Budapest, Hungary
janos.nemcsik@gmail.com

Guest Editors

Sandrine Millasseau, Pulse Wave
Consulting, Paris, France
sandrine_millasseau@yahoo.fr

Johannes Baulmann, 14 Nothelfer
Hospital, Weingarten, Germany
jbaulmann@yahoo.com

András Tislér, Semmelweis University,
Budapest, Hungary
tisler.andras@med.semmelweis-univ.hu

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First Round of Reviews

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