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Hasselt University protocol for maternal hemodynamic profiling

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Manuscript citation:

1. Gyselaers W. Hemodynamics of the maternal venous compartment: a new area to explore in obstetric ultrasound imaging. *Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology* 32: 716-717, 2008.
2. Gyselaers W, Mesens T, Tomsin K, Molenberghs G, and Peeters L. Maternal renal interlobar vein impedance index is higher in early- than in late-onset pre-eclampsia. *Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology* 36: 69-75, 2010.
3. Gyselaers W, Molenberghs G, Mesens T, and Peeters L. Maternal hepatic vein Doppler velocimetry during uncomplicated pregnancy and pre-eclampsia. *Ultrasound in medicine & biology* 35: 1278-1283, 2009.
4. Gyselaers W, Molenberghs G, Van Mieghem W, and Ombelet W. Doppler measurement of renal interlobar vein impedance index in uncomplicated and preeclamptic pregnancies. *Hypertension in pregnancy* 28: 23-33, 2009.
5. Gyselaers W, Staelens A, Mesens T, Tomsin K, Oben J, Vonck S, Verresen L, and Molenberghs G. Maternal venous Doppler characteristics are abnormal in pre-eclampsia but not in gestational hypertension. *Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology* 45: 421-426, 2015.
6. Gyselaers W, Tomsin K, Staelens A, Mesens T, Oben J, and Molenberghs G. Maternal venous hemodynamics in gestational hypertension and preeclampsia. *BMC pregnancy and childbirth* 14: 212, 2014.
7. Tomsin K, Mesens T, Molenberghs G, and Gyselaers W. Venous pulse transit time in normal pregnancy and preeclampsia. *Reproductive sciences (Thousand Oaks, Calif)* 19: 431-436, 2012.
8. Tomsin K, Vriens A, Mesens T, and Gyselaers W. Non-invasive cardiovascular profiling using combined electrocardiogram-Doppler ultrasonography and impedance cardiography: An experimental approach. *Clinical and experimental pharmacology & physiology* 40: 438-442, 2013.
9. Staelens A, Tomsin K, Grieten L, Oben J, Mesens T, Spaanderman M, Jacquemyn Y, and Gyselaers W. Non-invasive assessment of gestational hemodynamics: benefits and limitations of impedance cardiography versus other techniques. *Expert review of medical devices* 10: 765-779, 2013.
10. Staelens AS, Tomsin K, Oben J, Mesens T, Grieten L, and Gyselaers W. Improving the reliability of venous Doppler flow measurements: relevance of combined ECG, training and repeated measures. *Ultrasound in medicine & biology* 40: 1722-1728, 2014.
11. Staelens AS, Van Cauwelaert S, Tomsin K, Mesens T, Malbrain ML, and Gyselaers W. Intra-abdominal pressure measurements in term pregnancy and postpartum: an observational study. *PloS one* 9: e104782, 2014.
12. Staelens AS, Vonck S, Mesens T, Tomsin K, Molenberghs G, and Gyselaers W. Type-specific orthostatic hemodynamic response of hypertensive diseases in pregnancy. *Clinical and experimental pharmacology & physiology* 42: 1036-1044, 2015.
13. Staelens AS, Vonck S, Molenberghs G, Malbrain ML, and Gyselaers W. Maternal body fluid composition in uncomplicated pregnancies and preeclampsia: a bioelectrical impedance analysis. *European journal of obstetrics, gynecology, and reproductive biology* 204: 69-73, 2016.
14. Vonck S OJ, Staelens AS, Lanssens D, Molenberghs G, Gyselaers W. Optimization of Simple Sphygmomanometric Blood Pressure Measurement in Routine Prenatal Care. *Health Care Current Reviews* 5: 2017.
15. Vonck S, Staelens AS, Bollen I, Broekx L, and Gyselaers W. Why non-invasive maternal hemodynamics assessment is clinically relevant in early pregnancy: a literature review. *BMC pregnancy and childbirth* 16: 302, 2016.
16. Vonck S, Staelens AS, Mesens T, Tomsin K, and Gyselaers W. Hepatic hemodynamics and fetal growth: a relationship of interest for further research. *PloS one* 9: e115594, 2014.

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We use this protocol and it's working

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Abstract

A maternal cardiovascular profile was assessed in every pregnant woman combining three non-invasive techniques to obtain information about arteries, veins, heart and body fluid content (Table 1). A standardized protocol was used as reported in previous studies, as enlisted below.

Attachments

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Methods UHasselt Car...

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Troubleshooting