



ASX release

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SphygmoCor shows drug lowers blood pressure in pre-eclampsia patients

Follows earlier study demonstrating its accuracy in predicting pre-eclampsia

AtCor Medical Limited (ASX:ACG) today announced that a new study¹ which used the company's SphygmoCor[®] system to measure central blood pressure and arterial stiffness non-invasively, has shown important drug effects in pregnant women with pre-eclampsia that could not be detected with standard blood pressure monitoring.

Pre-eclampsia, which occurs in 3-5% of pregnancies, is responsible for hundreds of thousands of maternal and fetal deaths annually, and for lifelong health care problems resulting from preterm deliveries.

Published in the American College of Obstetricians and Gynecologists official journal, *Obstetrics & Gynecology*, the 160-patient study examined the effects of treatment on pregnant women with hypertensive disorders. It showed central blood pressure and arterial stiffness was significantly reduced by anti-hypertensive treatment with alpha methyldopa, a centrally acting hypertension medication marketed under brand names such as Aldomet and Dopamet. Two central blood pressure parameters that reflect the level of arterial stiffness - augmentation pressure and augmentation index - were significantly higher in patients with pre-eclampsia than in pregnant patients who did not experience pre-eclampsia.

The findings are especially significant because of research published by the same team at University of London, a study that also used SphygmoCor. The earlier study² published in *BJOG*, a leading international journal of obstetrics and gynecology, showed that elevated central blood pressure predicted 70% of all cases of pre-eclampsia and 88% of early onset pre-eclampsia, which occurs before 34 weeks of gestation.

The two studies point to a potential for SphygmoCor to play an important role in diagnosis, drug selection and drug therapy management for patients with pre-eclampsia—and reinforce existing clinical and drug development applications.

Drugs affect blood pressure at the heart and pressure at the arm differently

“Studies in non-pregnant women have found differential effects of anti-hypertensive drugs on central hemodynamics, despite similar effects on peripheral blood pressures measurements,” the latest study stated. “Our findings suggest that pulse wave analysis may also have a major role to play in the assessment of new and existing medications used in pregnancy so that central, as well as peripheral, effects can be determined,” the authors concluded.

¹ Khalil A, Jauniaux E, Harrington K; Antihypertensive Therapy and Central Hemodynamics in Women with Hypertensive Disorders in Pregnancy; *Obstetrics & Gynecology* 2009; 113: 646-652.

² Khalil A, Copper D, Harrington K. Pulse wave analysis, a preliminary study of a novel technique for the prediction of pre-eclampsia. *BJOG* 2009; 116:268-277.

Duncan Ross, AtCor Medical President and CEO, said “We are very excited about the contribution our technology may make in the diagnosis and treatment of pre-eclampsia, Studies have shown similar diagnostic and drug therapy management benefits in other forms of cardiovascular disease, but pre-eclampsia is a uniquely compelling application. Onset occurs before symptoms, severe health care consequences can occur within weeks, and two lives may be in the balance. With early warning and effective intervention there is hope that these terrible consequences could be prevented.”

About AtCor Medical

AtCor Medical develops and markets products for the early detection of cardiovascular risk and management of cardiovascular disease. Its technology allows researchers and clinicians to measure central blood pressure non-invasively. The company’s SphygmoCor system visibly identifies the effects of reflected blood pressure in the central aortic pressure wave, effects that cannot be detected with standard blood pressure monitoring. Central blood pressure has been found to be a superior predictor of cardiovascular events such as stroke, heart attack and kidney disease.

More than 1,900 SphygmoCor systems are currently in use worldwide at major medical and research institutions and in clinical trials with leading pharmaceutical companies. The companies technology has been featured in over 400 peer-reviewed studies published in leading medical journals. AtCor has operations in the United States, Australia, and Europe. For further information, please visit our web site at www.atcormedical.com.

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