



**INSTITUT DE
CARDIOLOGIE
DE MONTRÉAL**

AFFILIÉ A
Université 
de Montréal

PRESS RELEASE

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HEART RATE LOWERING DRUG IMPROVES EXERCISE CAPACITY IN PATIENTS WITH STABLE ANGINA

MONTREAL HEART INSTITUTE LEAD INVESTIGATOR PRESENTS AT LATE BREAKING CLINICAL TRIAL SESSION

Montréal, October 29, 2008 – Results from a Late-Breaking Clinical Trial presented today at the 2008 Canadian Cardiology Congress (CCC) in Toronto, show for the first time that adding the pure heart rate reduction medication ivabradine on top of current standard treatment for patients with stable angina improves exercise capacity over and above the current standard of care.

The four month randomised double-blind parallel-group study involved almost 900 patients from Canada and internationally with documented coronary artery disease and a history of stable angina. The objective of the study was to determine if treatment with ivabradine could improve exercise capacity in these patients beyond that achieved with their standard treatment. Patients received either ivabradine 5 mg bid for two months (increased to 7.5 mg bid in 87.5% of patients for an additional two months) or placebo for four months in addition to their current beta blocker background therapy (atenolol 50 mg daily).

“These data confirm that adding ivabradine over and above the standard of care we have available right now achieves a substantial increase in exercise tolerance and is well tolerated,” said Dr. Jean-Claude Tardif, the study’s lead investigator, director of the Montreal Heart Institute Research Centre and professor of medicine at the Université de Montréal. “For patients who have stable angina the results are very encouraging, particularly because of tolerability concerns with higher doses of beta blockers. As a result patients are often not achieving optimal heart rate reduction on standard therapy alone.”

An analysis of the data from treadmill exercise tests shows that patients who were treated with ivabradine in addition to a beta blocker (n=441) demonstrated a threefold improvement in total exercise duration at four months compared to those being treated with standard doses of beta blocker alone. After four months of treatment, the ivabradine and beta blocker combination was associated with a mean heart rate reduction of nine beats per minute (bpm) compared to one bpm in patients remaining on beta blockers alone. Patients receiving the ivabradine and beta blocker combination also had considerable improvements in symptoms and ischemia as measured by time to limiting angina, time to angina onset, and time to 1-mm ST-segment depression.

Ivabradine is not yet available for clinical use in Canada.

About Coronary Artery Disease

Coronary artery disease (CAD) is the most common manifestation of cardiovascular disease. It refers to the hardening and shrinking of the coronary arteries (atherosclerosis) which leads to diminished blood flow and reduces oxygen supply to the heart muscle (ischemia). The lack of oxygen supply to the heart muscle may cause angina (heart pain). If the coronary artery becomes completely blocked, a whole section of the heart muscle is deprived of oxygen and dies, resulting in a myocardial infarction (MI) or heart attack. Coronary artery disease is a progressive silent disease that very often is unobserved until the first symptoms of ischemia or MI occur. Although the prognosis of patients with CAD has been greatly improved by advances in cardiovascular treatment, it is still the first cause of death.

Cardiovascular disease accounts for the death of more Canadians than any other disease. In fact, in Canada someone dies every seven minutes from it. According to the latest statistics available from Statistics Canada, in 2004 cardiovascular disease accounted for close to one third of all deaths in Canada (more than 72,000 deaths).

Heart rate and CAD

Heart rate is a major determinant of oxygen consumption and can precipitate most episodes of ischemia, both symptomatic and silent. Consequently, lowering the heart rate in patients with CAD reduces the heart's need for oxygen. A number of epidemiological studies have shown that heart rate is a strong and independent predictor of cardiovascular events in a wide range of patients, including those with CAD and post-myocardial infarction. This risk seems to become particularly evident with heart rate above 70 bpm.

About the Montreal Heart Institute

Founded in 1954 by Dr. Paul David, the Montreal Heart Institute constantly aims for the highest standards of excellence in the cardiovascular field through its leadership in prevention, ultra-specialized care, training of professionals, clinical and fundamental research, and assessment of new technologies. It is affiliated with the Université de Montréal and its clinical outcomes are among the best in the world.

The MHI Research Centre began its work in 1976, and major achievements have occurred since its creation. Today, there are some 500 employees, students and researchers at the MHI Research Centre. Its outstanding feature is the balance it achieves between basic research, clinical research and clinical care. Its prime focus areas of research are vascular disease, myocardial function, and electrophysiology. MHI researchers also contribute to the advancement of knowledge and medical applications in the fields of genomics (notably, genetics and pharmacogenomics), biomarkers, and preventive cardiology. To learn more about the Institute, please visit our website at www.icm-mhi.org.

About the Université de Montréal

Deeply rooted in Montreal and dedicated to its international mission, the Université de Montréal is one of the top universities in the world, particularly in the French-speaking world. Founded in 1878, the Université de Montréal now has 13 faculties and, together with its two affiliated schools, HEC Montréal and École Polytechnique, constitutes the largest centre for higher education and research in Québec, the second largest in Canada, and one of the major centres in North America. It brings together some 2,500 professors and researchers, accommodates over 55,000 students, offers more than 650 programs at all academic levels, and awards some 3,000 Master's and PhD diplomas every year.

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