

New drug inclacumab reduces heart damage

March 10 2013

A single dose of an investigational anti-inflammatory drug called inclacumab considerably reduces damage to heart muscle during angioplasty (the opening of a blocked artery), according to a recent international clinical trial spearheaded by Dr. Jean-Claude Tardif, Director of the Research Centre at the Montreal Heart Institute, affiliated with the University of Montreal. Presented today in San Francisco at the prestigious American cardiology conference, these findings show great promise.

"Inclacumab could indeed become an integral part of the therapeutic arsenal of modern cardiology if we can reproduce these results in subsequent studies. We could use the drug for a broader patient population, or for all patients who present with a heart attack, but this will require further study," explained Dr. Tardif, lead investigator of the study and also professor of Medicine at the University of Montreal.

Reducing the risk of complications after angioplasty to treat heart attack

Each year, approximately 35,000 [coronary artery](#) angioplasty procedures are conducted in Canada and more than 1 million are conducted in the United States to treat atherosclerosis. This condition occurs when the arteries are obstructed with deposits of fat (cholesterol), calcium and cellular waste. Over time, the [arteries](#) lose their [elasticity](#) and narrow, which slows down or blocks blood flow. Because of the resulting complications (angina, heart attack, stroke, etc.), patients may ultimately need an angioplasty, which is a percutaneous intervention that dilates the

narrowed artery to re-establish [blood flow](#). However, [heart tissue](#) can become damaged during an angioplasty, and an inflammatory cascade can lead to other complications.

A single dose may provide benefits

For this clinical study, Dr. Tardif and his team compared the effects of a single dose of this new anti-[inflammatory drug](#) with placebo. Inclacumab is an antibody that blocks P-selectin, a molecule that drives inflammation and plays an important role in vascular disease.

To study the effects of the drug, Dr. Tardif and his team administered a single dose of inclacumab and then measured the subjects' levels of troponin I, which is a marker used clinically to diagnose [heart attack](#). They found that inclacumab reduced troponin I levels by 24 %. "It is very exciting to discover that a single dose of inclacumab can provide benefits," stressed Dr. Tardif. The trial involved 530 patients with myocardial infarction whose median age was 61 and 78.9 % of whom were men. Patients were randomized to receive an infusion of inclacumab at 20 mg/kg, inclacumab at 5 mg/kg, or placebo 1 to 24 hours before angioplasty. Markers for heart damage were then measured at 8, 16 and 24 hours after angioplasty.

On Sunday March 10, Dr. Tardif will present the results of the SELECT-ACS, supported by Roche, or "Effects of the P-Selectin Antagonist Inclacumab in the Select-Acute Coronary Syndromes Trial" at the 62nd Annual Scientific Session of the American College of Cardiology. ACC.13 is the premier cardiovascular medical meeting in the United States that brings together cardiologists and cardiovascular specialists to further advances in cardiovascular medicine.

Provided by University of Montreal

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