American first: A patient treated with a disappearing heart device

December 5 2011

The interventional cardiology team at the Montreal Heart Institute (MHI) used the world's first drug eluting bioresorbable vascular scaffold to successfully treat a woman suffering from coronary artery disease. This landmark procedure was performed by Dr. Jean-François Tanguay, interventional cardiologist and coordinator of the Coronary Unit, as part of the ABSORB EXTEND clinical trial. This successful intervention was a first in North America.

A breakthrough that could change the lives of patients

The patient, a woman in her sixties, had suffered from chest pain for a number of months. She was diagnosed with a severe lesion to the heart main artery. She responded favorably to the procedure, was discharged after 24 hours and now, one month after, has regained a normal way of life with no more chest pain.

The investigational ABSORB bioresorbable vascular scaffold, developed by global healthcare company Abbott, is an innovative therapy that restores blood flow by opening a clogged vessel and providing support to the vessel while it heals. Once the vessel can remain open without the extra support, the bioresorbable scaffold is designed to be slowly metabolized until the device dissolves after approximately two years, leaving patients with a treated vessel free of a permanent metallic implant. With no metal left behind, the vessel has the potential to return to a more natural state. After the device has been metabolized, the

patient's vessel is free to move, flex, pulsate and dilate similar to an untreated vessel.

For Dr. Jean-François Tanguay, it was important to be part of this first intervention, since during his postdoctoral studies he worked on early models of bioresorbable vascular scaffolds. "Treatments for coronary artery disease have progressed tremendously from the days of balloon angioplasties and metal stents leading to improved clinical outcome in our patients," said Dr. Tanguay, who is also an associate professor of Medicine at the Université de Montréal. "By effectively opening up a blocked artery without leaving a permanent implant behind in the blood vessel, this bioresorbable vascular scaffold has the potential to revolutionize how we treat our patients."

A revolution in the way we treat patients with coronary artery disease

This treatment is available in Canada as part of Abbott's global ABSORB EXTEND clinical trial which is a significant milestone toward making this innovative technology available to heart disease patients in Canada. In Canada, the clinical trial is conducted at four centers, including the Montreal Heart Institute (Dr. Jean-François Tanguay), Institut Universitaire de Cardiologie et de Pneumologie de Québec (Dr. Éric Larose), University of Ottawa Heart Institute (Dr. Marino Labinaz) and St. Michael's Hospital in Toronto (Dr. Christopher E. Buller). The ABSORB EXTEND trial will enroll approximately 1,000 patients from up to 100 centers in Europe, Asia Pacific, Canada and Latin America.

The device is made of polylactide, a proven biocompatible material that is commonly used in medical implants such as dissolvable sutures. ABSORB has CE Mark and is authorized for sale in Europe. It is under clinical investigation around the world with more than 500 patients

treated with the device.

Provided by Montreal Heart Institute