

Montreal Heart Institute performs its first implant of new prosthesis for cardiac arrhythmia

November 30 2009

A multidisciplinary team from the Montreal Heart Institute (MHI), which is affiliated to the Université de Montréal, performed its first catheter implantation of a new prosthesis (Amptlazer Cardiac Plug) closing the appendage of the left atrium of the heart, which will have the effect of preventing the formation of blood clots and avoiding open-heart surgery.

This is excellent news for patients suffering from [atrial fibrillation](#), the most common form of cardiac arrhythmia, affecting at least 5 percent of Canadians over the age of 70. This innovation takes place within the framework of a pan-Canadian program that includes the Institut de cardiologie et de pneumologie de Québec, the Toronto General Hospital, St. Paul's Hospital in Vancouver, as well as the MHI.

Pooling expertise, convincing results

The team that performed the first three procedures at the MHI on November 25, 2009, was composed of Drs. Réda Ibrahim, interventional cardiologist, Arsčne Basmadjian, cardiologist and ultrasound specialist, and Antoine Rochon, anesthesiologist, all professors at the Université de Montréal, as well as Drs. Patrick Garceau, fellow in echocardiography, and Hasan Jilaihawi, fellow in interventional cardiology, plus nurses and a radiology technician. The results of the procedure were favourable for all three patients, who are well today. The members of the MHI team

worked under the supervision of Dr. Rainer Schröder, head of the department of cardiology and intensive care unit at the Makus-Krankenhaus Centre in Frankfurt, Germany, the technique having already been used on a regular basis in Europe for over a year. Drs. Erick Horlick of the Toronto General Hospital and John G. Webb of St. Paul's Hospital in Vancouver were also present with a view to soon being able to perform similar procedures in their own institutions.

"We are delighted at being able to pool our expertise so as to offer a promising alternative to patients with atrial fibrillation and, in doing so, bring hope to these patients. By preventing clot formation, this prosthesis makes it possible to prevent cardiovascular accidents (CVA) and calls for a less invasive procedure in comparison to open heart surgery," said Dr. Réda Ibrahim.

Given its volume of activity and expertise in treating cardiovascular diseases, the MHI has also been chosen to serve as a training centre for American cardiologists who must be trained with a view to a study leading to approval of the prosthesis by the Federal Drug Administration (FDA). This training program will begin in early 2010.

Atrial fibrillation, the most common form of cardiac arrhythmia, is associated with significant morbidity. One person in 20 will be affected by it at some point in their lives. Since it is more common in older people, the incidence of atrial fibrillation is rising as the population ages. From a clinical standpoint, it can cause palpitations, fatigue and syncope (fainting). Under normal conditions, the atria (the chambers of the heart that receive blood from the veins of the body and lungs) pump blood into the ventricles, which in turn pump it to the lungs and peripheral areas of the body (brain, kidneys, legs, etc.)

In atrial fibrillation, the atrial contractions become rapid and irregular. Blood can pool in the heart's chambers, which may lead to the formation

of clots that can cause peripheral embolisms or strokes.

Source: University of Montreal ([news](#) : [web](#))

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