

A Canadian first in pediatric heart catheterization

The Sainte-Justine UHC and the Montreal Heart Institute achieve a Canadian first in the treatment of Kawasaki disease



CHU Sainte-Justine

*Le centre hospitalier
universitaire mère-enfant*

Pour l'amour des enfants

Université 
de Montréal



**INSTITUT DE
CARDIOLOGIE
DE MONTRÉAL**

APPILIÉ À
Université 
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Montreal, June 19th, 2006 – As a result of a long-term partnership between both institutions, two cardiologists from the Sainte-Justine UHC (SJUHC) and the Montreal Heart Institute (MHI) have successfully achieved a Canadian first in the treatment of a young patient's coronary arteries. The 13 years old patient, Michaël Boulanger, suffered from serious heart problems as a result of Kawasaki disease. The goal of this heart catheterization intervention was to save the patient's left coronary (which is essential for the heart to function properly), by unblocking it using a device called the "Rotablator", which is generally used for heart catheterization on adults.

This marks the first time that this catheterization technique has been used in the treatment of a child. "In Michaël's case, several options were contemplated in order to save his left coronary. However, due to the presence of intense calcification, we decided to use the "Rotablator", a rotary device which allows for the removal of calcification with little risk of tearing the blood vessel", explained Dr. Nagib Dahdah, Pediatric Cardiologist. Dr. Dahdah is part of the team of doctors who have been monitoring young Michaël since 1999, the year when a pediatrician from his region recommended he be transferred to Sainte-Justine, as she suspected a case of Kawasaki disease. "This delicate procedure was made possible thanks to our expertise in complex heart interventions on adult patients", added Dr. Réda Ibrahim, Hemodynamist and Cardiologist at the MHI.

A little known disease with potentially serious consequences

Kawasaki disease is an almost exclusively pediatric disease which causes an inflammation of the blood vessels and coronary arteries. Symptoms include high fever which lasts several days, skin rashes, conjunctivitis, red spots in the throat and mouth, swelling of the hands and feet, etc. In most cases, the disease heals without leaving any traces. However, among certain patients, it can cause more or less serious temporary or permanent lesions to the coronary arteries.

In cases such as Michaël's, where Kawasaki disease has caused permanent damage to the coronary arteries, a cardiological monitoring is required for the rest of the patient's life. The purpose of such monitoring is to measure the lesions' evolution, and to limit their consequences on the heart's proper functioning. The intervention, which took place last March 15th, was Michaël's first interventional catheterization since his diagnosis in 1999. Despite the cardiologists' success with this last intervention on his left coronary artery, Michaël must continue to take several medications in order to maintain a healthy heart and to avoid the formation of blood clots which could, once again, block those vessels which irrigate his heart.

Thus, in addition to the consequences on their health, children who have suffered from Kawasaki disease also see their quality of life greatly diminished: "I must limit my activities and carefully choose those I wish to perform, since I must avoid injuries at all costs. People don't always understand this, and the most difficult part is constantly having to explain what Kawasaki disease is about", Michaël said. In Quebec, nearly 100 new cases of the disease are diagnosed each year. Not everyone with the disease will develop heart problems; however, new treatments must still be developed for patients like Michaël.

An exceptional collaboration

For Dr. Denis Roy, Director of the Medical Department at the Université de Montréal, the success of this delicate pediatric intervention reflects a real synergy and a fruitful exchange between both institutions which form part of the Université de Montréal's RUIS. "The various institutions within our network, when working together, become the source of major expertise and numerous areas of excellence. This network achieves its highest value through exchanges and collaborations such as those which we are discussing today", Dr. Roy declared.

This Canadian first was successfully achieved thanks to the combined expertise of the Sainte-Justine UHC and the Montreal Heart Institute, and more specifically to the expertise in adult cardiology of Dr. Réda Ibrahim from the Montreal Heart Institute, and to that of Dr. Nagib Dahdah of the Sainte-Justine UHC in the treatment of Kawasaki disease. Both cardiologists and hemodynamists are also clinical assistant professors at the Faculty of Medicine of the Université de Montréal. With a goal to provide continuous care in heart sciences from childhood to adulthood, the SJUHC and the MHI have been collaborating since 1989, the year when the MHI's Adult Congenital Heart Centre was launched.

About the Sainte-Justine UHC

The Sainte-Justine University Hospital Center is the largest mother-child center in Canada. It encompasses 450 beds and over 4,000 employees, admits 19,000 people annually and welcomes 260,000 patients at its Outpatients Clinic. It is one of the four most important pediatric centers on the American continent. Affiliated with the Université de Montréal, the Sainte-Justine UHC is by far Quebec's largest pediatric training center, and a leader in Canada. Each year, it welcomes about 4,000 students. The global reach of the Sainte-Justine UHC and its research center is quite impressive. The Sainte-Justine UHC will be celebrating its 100th anniversary in 2007. www.chu-sainte-justine.org

About the Montreal Heart Institute

Founded in 1954, 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. To learn more about the Institute, please visit its website at www.icm-mhi.org

About the Université de Montréal

Founded in 1878, the Université de Montréal is, along with its affiliated schools, HEC Montréal and the École Polytechnique, the leader in higher education and research in Quebec, the second in Canada and one of the most important in North America. Its Faculty of Medicine includes over 4,000 students and relies on a solid hospital network featuring two major university hospitals (UHC) and thirteen affiliated hospitals and institutes. Through its Réseau Universitaire Intégré de Santé (RUIS), the Faculty of Medicine is responsible for the health care of 40% of the Quebec population.

Source: Sainte-Justine UHC
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