

Replacement of a mitral valve without opening of the heart or the thorax



The 1st mitral valve replacement surgery without opening of the thorax or heart was performed at the Heart & Lung Institute, CHU-University Hospital of Lille, by Professor Eric Van Belle and Dr. Thomas Modine.

The medical and surgical team of the Lung Heart Institute of the CHU Lille led by Professor Eric Van Belle and Dr. Thomas Modine has performed the replacement of a mitral valve heart without opening the chest or heart. This minimally invasive procedure, carried out in November 2018, allowed a very rapid recovery of the operated patient.

It is indeed by going through the natural routes from a simple puncture in a vein of the patient's leg, that this valve has been implanted through a catheter, without the need to stop the heart.

The surgery was designed to correct a severe malfunction of the mitral valve, which is essential for heart function, in a patient who presented with a surgical risk that was too high for conventional open chest surgery.

This medical prowess was made possible by the use of a new generation of mitral valve specially designed for this purpose (Cephea valve). It was realized with the participation of Dr. Godart, in pediatric cardiology, Dr. Brandt anesthesiologist and Dr. Pontana and Dr. Coisne for imaging, Lille University Hospital.

Real hope for patients with mitral insufficiency

Mitral insufficiency (or leakage) is the most common heart valve disease. It is responsible for heart failure, ie shortness of breath at the least very debilitating effort, and the appearance of edema in the legs.

Mitral insufficiency may appear with age or be the sequela of anterior heart disease such as myocardial infarction. Until now, the only surgical treatment available was to open the thorax to repair the valve or replace it with a prosthesis. This innovative intervention, practiced at the University Hospital of Lille, represents a real hope for people suffering from a mitral valve insufficiency for which none of the treatments currently available is effective and is too high risk to undergo conventional surgery.

In the future, it could benefit many patients. Lille masters the techniques of minimally invasive intervention. Its teams perform 300 aortic valve replacements per year by TAVI and this is the first time this implantation technique has been adopted for the replacement of a mitral valve.

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