

## AUB Medical Team Successfully Performs

### First 'Artificial Heart-Assist Device' Implant in Lebanon

An AUB medical team successfully performed, at the American University of Beirut Medical Center, the first "artificial heart - assist device" implant in Lebanon, thus saving the life of a 37-year-old man suffering from terminal heart failure.

The six-hour operation took place on August 28 and was deemed successful as the patient survived the first critical 72 hours, showing improvements in all his vital signs.

The 'Artificial Heart-Assist Device' implant operation involves the implantation of a device called a Left Ventricular Assist Device (LVAD) that takes over the functions of the left ventricle of the heart, the dominant chamber which is responsible for pumping oxygenated blood via the aorta to the rest of the body.

"The operation was a huge success as it was this patient's last chance at life," said Dr. Pierre Sfeir, the AUB surgeon who conducted the operation. "His vital organs are functioning normally and the new device implant is pumping blood properly," added Dr. Hadi Skouri, the cardiologist who has been treating the patient and a specialist on heart failure and transplantation.

The LVAD used in this surgery is called Heartmate II. It is manufactured by the US company Thoratec.

The two AUB doctors were assisted by a multidisciplinary medical team, including the leading expert on LVAD operations, Dr. Latif Arusoglu, a German surgeon, as well as a clinical specialist, both dispatched by Thoratec.

The surgery was attended by Dr. Ibrahim Dagher, Emeritus Professor of Surgery, Dr. Raja Haddad, Clinical Associate Professor of Surgery and Dr. Mounir Obeid, Professor of Surgery. Dr. Obeid commented "Dr. Ibrahim Dagher made history at AUBMC some five decades ago. It was a great pleasure having him and Dr. Raja Haddad oversee this new breakthrough. Attempts at implanting similar LV assist devices in the Middle-East had failed previously; and, we are happy for our patient who is the first survivor. We thank Dr. Latif Arusoglu, Thoratec Company and all the AUBMC team members- physicians, nurses, technicians and administrators- who made this achievement possible." "Ninety percent of all cardiac failures are the result of left ventricular failure," explained Dr. Skouri. "When the left ventricle does not function adequately, there are several treatment options available to physicians", he added. As a



first step, these patients are placed on a drug therapy that helps the heart pump blood. If that does not work, patients might undergo a relatively simple operation that involves inserting a pacemaker or other devices that help improve the pumping function. As a last resort, physicians opt for human heart transplants. Since human heart donors are in short supply, surgeons have previously used the LVAD as a temporary solution, while waiting for a human donor heart. LVADs have been available since the mid-1990s. But about five years ago, doctors found out that LVADs can be used as "a destination therapy" for patients who are not candidates for heart transplantation.

"The aim of implanting such devices is to preserve life, restore blood circulation, and provide optimal blood supply to all vital organs and thus normalizing organ function," explained Dr. Skouri.

Of course, not all patients are eligible for this ultra-expensive and complicated surgery, noted the doctors. "If the patient suffers from other serious chronic diseases, we cannot operate on him/her," noted Dr. Sfeir, who also heads the division of cardio-thoracic surgery at AUBMC.

Dr. Samir Alam, who heads the cardiology division, said "Although we are very excited to offer this new procedure to our patients, we cannot stress enough the complexity of this surgery, which is medically a very demanding way of treating heart failure. It remains a last resort in patients who have failed all other modern pharmacologic and mechanical interventions. Furthermore, in the majority of the cases, it is a temporary treatment in preparation for h e a r t transplantation".

The 37-year-old man who was operated on at AUBMC fulfilled all the criteria.

Recovering in the special care unit, the patient, a father of four, was all smiles and energy on day 3 after the surgery, despite all the tubes connected to him.

"I am very, very happy," he said, "and very grateful for the AUB team that took care of me, staying for several nights to make sure I am doing well."

An employee at Byblos Bank, the recovering patient expressed his deep gratitude for his employer who covered the cost of the operation.

"I was facing death when I arrived here," he said. "Merely lifting an arm would knock the wind out of me. I could barely breathe. Now, I have a new lease on life."

He added, "My family is really, really happy. My dad cannot stop smiling."

