Using ELAD to Treat Liver Failure - The Case of Dariusz Reszuta

Dr. Lewis Teperman

Widely acknowledged by his peers as an authority in the field of liver transplant surgery, Dr. Lewis Teperman of New York is currently the Director of Transplantation at NYU Langone Medical Center. Among his research interests is the [Extracorporeal Liver Assist Device (ELAD),](http://clinicaltrials.gov/show/NCT00973817) an artificial liver for patients with acute liver failure. In 2009, Dr. Lewis Teperman successfully used the ELAD to keep a critically ill patient alive until a donor liver could be found.

In April 2009, Dariusz Reszuta's liver began to fail for no apparent reason. Toxins that the liver normally metabolizes started to accumulate in his body and caused his brain to swell. Permanent brain damage and multiple organ failure seemed imminent. He was brought to NYU Langone Medical Center's Emergency Department unconscious and with just days or perhaps only hours to live.

Reszuta was moved to the top of the liver transplant waiting list but there were no suitable organs to be found. In order to buy time, his doctors pumped 24 units of fresh blood plasma into his system in order to dilute the concentration of life-threatening toxins and then connected him to the ELAD, a new and experimental bio-artificial liver that had been used in several preliminary clinical trials but never before with a critically ill patient. The levels of blood toxins began to drop within hours of hooking Reszuta up to the device and a donor organ was found and flown to New York in the meantime. Dr. Teperman and his team performed the liver transplant surgery and Reszuta eventually made a full recovery. He is a living testament to ELAD's efficacy in buying time for critically ill liver patients.