

Alcor News Bulletin

Number 9: February 26th, 2003

Thomas Munson, MD: 1922-2003

(a personal account by Charles Platt on behalf of Alcor)

Early on the morning of Monday, February 24th, Dr. Thomas Munson experienced cardiac arrest in Southern California. Dr. Munson had been a long-time Alcor member who formerly served as our medical director at a time when few professional physicians were willing to be associated with cryonics. We are extremely sad to lose him, and we hope that through our efforts he may have a significant chance of renewed life in the future.

Below are some preliminary case notes.

At 8:50 AM (all times in this text are Mountain Standard, one hour later than Pacific) I answered the Alcor emergency line and found myself speaking to Tom Munson Jr, who was calling from the San Diego area. Tom Jr. explained that Dr. Munson had complained of nausea and shortness of breath, said he felt faint, and lay down to rest. His breathing had become slow and shallow, and finally ceased. Tom Jr. had called the paramedics, but while I was on the phone he told me that the paramedics were abandoning their attempts at resuscitation. I asked if they were willing to administer heparin, and they refused, citing the risk that Dr. Munson's unexpected death could cause him to become a coroner's case.

Under California law the coroner's office may issue an autopsy waiver if a physician has seen the patient recently and will state that there is good reason to believe death came from natural causes. Tom Jr. started trying to contact his father's physician while I telephoned some members of Alcor's Southern California standby team and then contacted Joe Klockgether at his mortuary in Buena Park, near Los Angeles. Mr. Klockgether has helped us in numerous cryonics cases. When I asked him to dispatch a pickup service as quickly as possible, he warned me that if the patient was taken for autopsy, pickup would not be possible. I requested that the service should go out anyway in the hope that an autopsy waiver would be granted by the time they got there.

Jerry Lemler was with me at Alcor, and we considered various transport scenarios. I estimated that Dr. Munson's location near San Diego was about three hours from the Klockgether mortuary. Should we try to find another mortuary closer to our patient? I decided that I could waste too much time pursuing this option, because it would entail negotiating for permission to perform procedures and then relocating our standby team and their equipment. It would be more time-efficient for team members to start preparations in Buena Park while Mr. Klockgether's collection service retrieved our patient. In retrospect I believe this decision was correct.

Between 9:30 and 10:00 AM we received two unexpectedly good

pieces of news. The coroner's office granted a waiver eliminating the need for autopsy, and Tom Jr. found a set of portmortem medications which Dr. Munson had acquired some years ago. Alcor's paramedic, Larry Johnson, spoke to Tom Jr. on the phone and guided him through the procedure of administering several drugs, one of which was in powder form and had to be mixed with saline. With truly exceptional dedication, Tom Jr. then did chest compressions to circulate the meds. By about 11:00 MST the primary meds were in, and Tom Jr. went to get additional ice from a nearby source. When he returned he followed my instructions to put the ice in strong plastic bags with a little water, place them all over the patient, and perform intermittent chest compressions in an effort to circulate blood which would carry heat from the core of the patient to areas near the surface where the ice would provide some cooling.

I conferred with our consulting surgical team in California, Steve Harris MD and Sandra Russell, and their colleague Joan O'Farrell. They told me they were ready to respond whenever necessary. Once again we discussed various transport options, including the possibility of taking the patient directly from San Diego to Alcor. In the end I stuck to the original plan. My only remaining uncertainty was whether we should transport to Alcor by air or ground after procedures at the mortuary were complete.

The nearest airport to the Klockgether mortuary is about half-an-hour away. The flight to Phoenix Sky Harbor takes at least 1.5 hours including taxiing from the departure gate and to the arrival gate. Collecting the patient from an air cargo facility at Phoenix Sky Harbor and bringing him to Alcor takes at least half-an-hour. In addition, all U.S. airlines have imposed a mandatory two-hour waiting period on air cargo since the terrorist attacks of September 11. Thus the bare-minimum travel time for a cryopatient by scheduled airline, from the Klockgether mortuary to the Alcor facility, including an initial two-hour wait, is 4.5 hours under ideal conditions, assuming that a flight is available precisely when we need it and is not delayed for any reason.

Actually I believe a more realistic door-to-door air transport time is at least six hours. This is the same time it takes to drive to Alcor from the Klockgether mortuary. Moreover, by transporting a patient ourselves we eliminate any paperwork problems with an airline, and avoid the risk of flight delays or cancellations.

It's true that a chartered jet can circumvent most of these problems while reducing total travel time to about 2.5 hours, but our patient did not have additional funding, and air-charter service from the Los Angeles area costs about \$7,000. Consequently I decided to go for transportation via a rented van.

Shortly after 1 PM I learned that the mortuary pickup service had finally collected the patient. Bobby June was now at the mortuary setting up the ATP (Air Transportable Perfusion equipment for washout and cooling), Todd Huffman had brought additional medications, and Peter Voss and Louise Gold were on their way there. I telephoned our California surgical team, who had set out to the mortuary.

Joseph Klockgether meanwhile was driving to San Diego to find the patient's physician, who would sign the death certificate, enabling Mr. Klockgether to file it with the county registrar and obtain a permit to move the patient out-of-state.

At Alcor the operating room was being prepared by Mathew Sullivan and Hugh Hixon with help from Jessica Sikes, James Sikes, Paula Lemler, and Angela Chicoine, a registered nurse in the Phoenix area who has been helping us at Alcor on a part-time basis. We discovered that our primary video camera had failed, and James Sikes went to buy a replacement.

The patient reached the Klockgether mortuary soon after 4 PM, at which point our surgical team began working to cannulate the femoral vessels. Finding the femoral artery was unexpectedly difficult, and Dr. Munson's vasculature turned out to be extremely fragile. Surgery was a major challenge, and cooling via femoral-femoral bypass was not completed until 8 PM. I verified that Mr. Klockgether had obtained the signed death certificate, and Bobby June and Todd Huffman set out on their road trip to Alcor.

I spoke briefly with Tom Jr. and thanked him for his outstanding efforts to provide initial cooling and medications under extremely difficult circumstances. Then I notified our staff in Arizona that the patient would reach Alcor at some time after 1:30 AM. Since most of our preparations were complete, many people went to get some rest while I stayed by the phone.

Dr. Munson arrived at our facility at 2:15 AM, with a DualogR, installed by the California team, registering a record-low nasopharyngeal temperature of 0.1 degrees Celsius. Our surgeon, Dr. Jose Kanshepolsky, was ready to begin around 2:30 with our surgical technician, Jeff Kelling. Jerry Lemler MD also assisted with surgery. Initially Dr. Kanshepolsky had extreme difficulty finding the left carotid artery, just as our friends in Southern California had experienced difficulty finding the femoral. I was relieved when Dr. Kanshepolsky solved this problem and found the remaining vessels very quickly.

Around 3:30 AM the patient's temperature had risen to 6.5 degrees Celsius, which was still comfortably below our initial perfusate temperature of 10 degrees. Dr. Munson was signed up for neuropreservation, and we completed surgery in the controlled-temperature environment of the neuro enclosure which has been modified and refined over the past year by Hugh Hixon. By 4 AM cannulation was complete and cryoprotective perfusion began. The initial venous return contained some small blood clots, but they cleared fairly rapidly, and we were very pleased when there was no sign of edema. I decided that I could safely leave the facility and drive to my home in Northern Arizona, about 140 miles away. I arrived at about 7:30 AM and called Hugh Hixon, who reassured me that there was still no sign of edema. Also, he saw no evidence of asymmetry in the perfusion. He said that cryoprotection would be complete ahead of schedule, by 8:00 AM, at which time the patient would be moved to our cooldown dewar.

Overall, although this case occurred with absolutely no warning, it was completed very successfully. Total time from cardiac arrest to cooling via bypass at the mortuary was about twelve hours, and all the procedures at Alcor were completed within six hours.

I have used Dr. Munson's name in this account because he stated in his Alcor signup documents that did not request anonymity. His son also agreed to be named since he believes that this is what his father would have wanted.

Many thanks to all the people who provided outstanding help to our patient. In chronological order: Tom Munson Jr., Larry Johnson, Jennifer Chapman, Jerry Lemler MD, Bobby June, Todd Huffman, Louise Gold, Peter Voss, Joe Klockgether, Steve Rude, Steve Harris MD, Sandra Russell, Joan O'Farrell, Michael Riskin, Russell Cheney, Mathew Sullivan, Hugh Hixon, James Sikes, Jessica Sikes, Paula Lemler, Angela Chicoine, Jerry Searcy, Jeff Kelling, Jose Kanshepolksy, Mike Read, and Mike Perry.

Alcor CEO will Speak at Cambridge University

Anti-aging scientist Aubrey de Gray, who chairs the Tenth Conference of the International Association of Biomedical Gerontology, has invited Alcor CEO Jerry Lemler MD to speak at the conference, which will take place this year from September 19th through 23rd at Queens College, Cambridge, England. Dr. Lemler will give a twenty-minute speech explaining fundamental concepts of cryonics. Other speakers participating in the conference will include Bruce Ames, a winner of the U.S. Medal of Science in 1998; Mario Capecchi, who was awarded a U.S. Medal of Science in 2001; Arthur Caplan, the first president of the American Association of Bioethics; William Haseltine, Chairman and CEO of Human Genome Sciences; and Michael West, President and CEO of Advanced Cell Technology.

We are excited that Dr. Lemler will have this opportunity to talk about Alcor and cryonics at a prestigious international event.

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