

60-Pound Tumor Removed from Man's Leg

Surgery completed without blood transfusions

By Christina Johnson | December 10, 2014

Physicians at UC San Diego Health have removed a 60-pound tumor from a man's leg without the use of blood transfusions. More than half the patient's blood was drained from the massive growth and recirculated back into his body during the four-hour procedure. The tumor's dry weight, 24 hours after the surgery, was about 58 pounds.

"My leg feels like a feather," said Orange County resident Matthew Qureshi, who is in rehabilitation and expected to regain full function of his leg. "I can't wait to wear regular pants again."

Prior to the surgery, Qureshi could only fit in custom-made pants, tailored by a seamstress friend to accommodate the mass on his thigh which had, over the course of several years, become enormous.

Qureshi was suffering from a pseudosarcoma, a rare non-cancerous overgrowth of soft-tissue, often mistaken for a cancerous sarcoma. There have been only 42 reported cases of the condition worldwide.

Pseudosarcomas can be caused by the genetic disorder neurofibromatosis. They can also, as in Qureshi's case, arise without an identifiable explanation.

"We initially thought the tumor was a complication associated with lymphedema (swelling of the lymph nodes), which he had in his lower leg," said Matthew's mother, Anita Qureshi. "We were looking for someone to do compression bandaging on his thigh. But as the swelling grew bigger and bigger, it became untreatable."

"None of the doctors knew what it was," she said. "Eventually, they said it was too big to remove. It was a horrible situation. I could see the tumor growing bigger by the week. He was at the point I could not fit him in my car anymore."

To walk, he had to transport his tumor on a platform attached to his electric scooter.

After several years of looking for a surgeon who would perform the complex procedure, Qureshi was finally referred to Anna Kulidjian, MD, an orthopedic surgeon at UC San Diego Health, who

specializes in soft-tissue orthopedic oncology surgeries.



Kulidjian agreed to treat the 37-year-old Qureshi and assembled a team of UC San Diego Health specialists who could remove the tumor safely without blood transfusions, which Qureshi refuses for religious reasons.

Besides herself, the team consisted of plastic surgeon [Marek Dobke, MD](#), an expert in reconstruction and surgical flap techniques, and an anesthesiologist, Bradley Hay, MD.

Together, they developed a procedure for Qureshi's extraordinarily rare situation. First, the tumor was positioned so that the surgeons could see and access the area of separation. This was

done by stabilizing the tumor with a metal rod and suspending the mass above the operating table. In this position, gravity drained blood from the tumor into the leg, reducing blood loss during the operation.

A self-transfusion was implemented, in which two units of Qureshi's blood were extracted prior to surgery and stored for use later. Two units of saline solution mixed with albumin were infused back into him to re-establish his original blood volume and reduce the effective hemoglobin loss during the operation. This procedure is known as isovolumetric hemodilution.

During the surgery, blood draining from the tumor was also captured, sent through a cell-washing blood recovery system and re-transfused into the patient. Hay said that more than one liter of blood was salvaged in this way.

In the last two years, Kulidjian and colleagues have treated three patients with pseudosarcomas, two in the last three months. The other patients received blood transfusions and had smaller tumors.

"We are becoming a referral center for the procedure and I am glad we have the expertise to help these people," Kulidjian said. "But the message we are trying to get out is that you should see a doctor immediately if you have any soft-tissue mass that is bigger than a golf ball."

A month after his lifesaving surgery, Qureshi, who has mild Down's syndrome, can again walk without assistance and his hemoglobin levels are normal.

He is currently in physical therapy to further improve leg strength, coordination and balance and visits UC San Diego Health weekly to have his compression bandages rewrapped and his general health and recovery monitored.

For Qureshi's mother each week that goes by with her son getting better is nothing short of amazing.

"The first time I saw his leg without that tumor, I lost it," she said. "I cried and cried. I had stopped hoping for the best. It has been a miracle."
