



INTRAOP

## **Case Study – Courtney Roush**

### ***Teacher Learns Many Valuable Lessons in Winning Her Battle with Cancer***

Courtney Roush, 24, is a caring, dedicated teacher in Findlay, Ohio. Recently married, Courtney is enjoying life as a newlywed and hoping to start a family soon. Today, Courtney has a bright future ahead of her. When she's not inspiring students in the class room, she inspires others with her story; winning the fight against cancer.

#### ***The Warning Signs***

Back in 2003, Courtney was a busy sophomore at Ohio University, when she began to experience lower back pain, fatigue, and weight loss. Initially, she didn't give it much thought. "I was extremely tired all the time. I thought it was because my lower back was in pain and it was preventing me from sleeping well at night," Courtney explained. "I assumed it was a back problem and eventually it would go away. I just had no idea."

Courtney began to lose weight rapidly without trying. At first she thought it was a blessing, but others around her expressed some concern. "I was 5'4 and 120 pounds when I started the school year. I really didn't need to lose weight, but the pounds were sliding off. I thought it was great in the beginning. But then I started to look really gaunt. People told me I was too thin."

It wasn't until a random check at a local drug store, revealed extremely high blood pressure – that Courtney decided to make an appointment with her doctor. "I sat down at one of those blood pressure machines, put the cuff around my arm and pressed start. The numbers were through the roof and my pulse was very high. So, that was a red flag. Then when I got home my mom took one look at me and said we need to get you to a doctor right away."

#### ***The Diagnosis***

Courtney's mother took her to the emergency room. The doctor on call said he was extremely worried after reviewing the x-rays taken of her abdomen, as he could not see any of Courtney's organs. He indicated that it could be cancer and recommended that she be admitted to the hospital first thing in the morning.

"Doctors there did a ton of tests and determined I had an 8lb tumor, which had almost completely engulfed my kidney, my bowel, and other organs. A biopsy of sample tissue from the back of my abdomen confirmed a diagnosis of a rare form of cancer, called Retroperitoneal Sarcoma."

Retroperitoneal sarcomas are malignant tumors, which grow in the abdominal cavity. They have an aggressive rate of growth and are known for their high rate of recurrence. The evaluation and treatment of retroperitoneal sarcomas are challenging because the tumors are relatively rare and show few symptoms until they are large enough to compress or invade surrounding structures.

#### ***Exploring Treatment Options Which Feel Right***

"My father told me not to just accept one opinion," Courtney confided. "He said it's important to meet with several physicians in order to decide what the right treatment plan is for me."

Eventually, two sarcoma specialists, Timothy J. Kinsella, M.D. in Radiation Oncology and Robert Shenk, M.D. in Surgical Oncology at University Hospitals Case Medical Center recommended radiation therapy, followed by an operation to remove the tumor. Dr. Kinsella told Courtney that during the operation, he wanted to use a new technology, called the Mobetron device, to administer intraoperative electron radiotherapy (IOERT) treatment to kill the remaining cells.

Mobetron is the first OR-ready, fully portable, self-shielding electron-beam linear accelerator designed for use in any operating room. Key Mobetron benefits include: increased survival rates, better local tumor control, shorter treatment cycles, fewer side effects and peace of mind. Leading hospitals, from university research centers to specialized cancer clinics in North America, Europe and Asia, use Mobetron as a vital part of their comprehensive cancer program to deliver life-saving treatment.

Courtney said, "One of my doctors was a professor and he asked me if I'd be willing to participate in a study using the Mobetron. He said I'd be one of the first patients at University Hospitals Case Medical Center to benefit from the new technology and he thought I was an ideal candidate."

Dr. Kinsella had been involved in pre-clinical and early clinical studies on the role of IOERT in the treatment of retroperitoneal sarcomas while at the National Cancer Institute (NCI) in the mid 1980's, which suggested a benefit to IOERT. However, at the NCI, patients receiving IOERT had to travel under anesthesia from the operating room to the radiation oncology department which added one to two hours to the surgical procedures. By contrast, use of the Mobetron adds only 15 to 30 minutes.

### ***Determined To Defeat Cancer***

Courtney felt comfortable with the course of action the two doctors recommended and immediately embarked on her journey to eradicate the cancer. After 35 radiation treatments, the operation was scheduled. Dr. Shenk removed the tumor, along with one kidney and part of Courtney's intestines, and Dr. Kinsella used Mobetron to administer the IOERT treatment to kill the remaining cancer cells. The procedure was a success.

According to Dr. Kinsella, "We now have a series of 20 patients treated similar to Courtney's case with very encouraging results."

### ***Life after Cancer***

Courtney couldn't be more pleased with the results. "It was a miracle," she said. "Before the surgery I had cancer, and after the surgery I was cancer free. I didn't have to do any more radiation treatment, take any medication, or anything. In less than three months, I was back in school. Eventually I gained my weight back and I have been fine ever since."

Courtney says her family and friends played an important role in her recovery, "Emotionally, you can't go through something like this alone. You need support from friends and family, and you have to stay spiritual."

Still, Courtney credits her doctors and a new cancer-fighting device, with making it all possible. "I am so grateful that my doctors were open to using new technologies. The Mobetron is an amazing tool and I want everyone going through something similar to know about it. It saved my life. And it can save others."

### **About IntraOp**

IntraOp Medical Corporation provides innovative technology solutions for the treatment and eradication of cancer. Founded in 1993, IntraOp is committed to providing the tools doctors need to administer intraoperative radiation therapy safely and effectively – for all cancer patients. The company's flagship product, Mobetron, is the first fully portable, self-shielding intraoperative electron radiation therapy device designed for use in any operating room. Key Mobetron benefits include: increased survival rates, better local tumor control, shorter treatment cycles, and fewer side effects. Leading hospitals, from university research centers to specialized cancer clinics in North America, Europe and Asia, use Mobetron as a vital part of their comprehensive cancer program.

For more information on IntraOp Medical Corporation, please visit: [www.intraopmedical.com](http://www.intraopmedical.com)