After spending most of the day at her daughter’s basketball tournament on Sunday, March 2, 34-year-old Miami University nursing student Donna Hoskins didn’t think much about the headache she had when she got home. So she went to her uncle’s machine shop in Middletown around 6 p.m to do some bookkeeping.

Donna was working alone on the computer in the quiet, mostly dark shop when she realized something was very wrong. She felt pressure on her neck and a wave of pain in her head that she had never felt before.

“It hurt so badly,” remembers Donna. “I tried to lie down on the floor, turn my head side to side and even tried to ‘pop’ my neck because I thought something was out of place,” remembers Hoskins. “It was the most intense, horrible pain, unlike anything I had ever felt before. I called home and told my 11-year-old daughter to get her dad on the phone. When he answered, I just started crying and told him something was wrong. I walked to my car and put my seat back to try and relieve the pain before he got there.”

“It was the most intense, horrible pain, unlike anything I had ever felt before.”

– Donna Hoskins, 34

A Twist of Fate
By Patty McDaniel
Since mid-2001, William Protzer, MD, has performed more than 45 endovascular coiling procedures to treat ruptured brain aneurysms.

“Since mid-2001, William Protzer, MD, has performed more than 45 endovascular coiling procedures to treat ruptured brain aneurysms.

Her husband Shawn immediately drove her to an area hospital, where her pain and its cause were explained in shocking reality. “I just remember the physician telling me they found a bleed in the part of my brain called the ‘circle of Willis,’ which was at the base of my brain. I was in shock.” Donna asked to be transferred to Miami Valley Hospital.

“When they called for CareFlight, I knew I was in major trouble and my husband Shawn was beside himself with worry. He called my parents and they all made the 40-minute drive from Middletown to MVH.”

Luckily for Donna and her family, William R. Protzer, MD, an interventional neuroradiologist in Miami Valley Hospital’s Medical Imaging department, has been performing a relatively new procedure for the treatment of intracranial aneurysms called endovascular coiling.

The procedure was developed in the early 1990s – as an alternative to conventional surgical therapy – where platinum coils are delivered into the aneurysm sac in the brain through the arterial tree. This less-invasive treatment produces better outcomes for patients suffering from ruptured brain aneurysms than the traditional method of neurosurgical clipping, which

Continued on next page
involves performing a craniotomy (removing part of the skull).

Miami Valley Hospital is the only hospital in the Dayton area that uses the new technology; 45 procedures have been performed since July 2001.

In Donna’s case, the aneurysm had ruptured to a point and then had stopped. So on Monday, March 3, Hoskins and her family spoke with Dr. Protzer and chose to have the coiling procedure done the next morning.

“I remember that day because Dr. Protzer found out that I had four children ranging in age from 4 to 14,” says Donna. “He showed genuine emotion and care in regard to my treatment, and that is something I will always remember.”

Early on Tuesday, March 4, Donna underwent the procedure under the care of Dr. Protzer and a team of hospital personnel including a neurosurgeon, an anesthesiologist, nurses, a scrub technologist and several Medical Imaging employees. A catheter was inserted into the femoral artery in her leg, and navigated through her vascular system under X-ray guidance into her head and into the aneurysm.

Donna spent the next week in MVH’s Intensive Care Unit where she was monitored closely and given various medications. The role of MVH’s ICU is crucial in the recovery of patients because the first 24 hours are critical for patients, and they must be monitored for any clinical deterioration that may require immediate evaluation.

“The risk for patients is not insignificant,” says Dr. Protzer. “But we can now identify brain aneurysms using non-invasive diagnostic imaging technologies and provide treatment in the form of less-invasive coiling. The immediate result is being able to make as big a difference in someone’s life that you possibly can in this profession.”

Although she is receiving follow-up treatment, Donna has fully recovered and graduated from Miami University’s Middletown campus in May, with an associate’s degree in nursing. She plans to begin a career as a nurse after completing her state board exams this summer.

To learn more about Miami Valley Hospital’s Medical Imaging program, call CareFinders at 937-208-FIND (3463.)

What is a Brain Aneurysm?

A brain aneurysm is a balloon-like bulge in the wall of a brain artery. If the bulge tears and bleeds, nearby cells may be damaged. The aneurysm can occur in an artery wall that is weak or has a defect, and is often associated with hardening of the arteries. High blood pressure, heredity or a head injury are also risk factors.

- Up to eight percent of the adult population suffers from cerebral aneurysms.
- 75 percent are still fixed by neurosurgical clipping (a craniotomy that removes a section of the skull).
- Most are diagnosed only after the aneurysm has ruptured.
- The most common age range of patients is from 40 to 60 years old.
- The majority of patients are female.
- Cigarette smoking may increase the risk.
- 10 to 15 percent will die before reaching the hospital; more than 50 percent will die within the first 30 days and only 25 percent fully recover.

Symptoms

In most cases, a brain aneurysm has no symptoms until it bleeds or tears. Symptoms of bleeding or tearing can include:

- severe headache, nausea and vomiting;
- neck stiffness;
- brief blackout;
- confusion or sluggishness;
- vision or speech problems;
- paralysis or weakness on one side of the body;
- clumsiness; or
- jerking movements.

The future of Endovascular Coiling Procedures at MVH includes:

- Stent assistance for the treatment of wide neck aneurysms
- Coated platinum coils to accelerate thrombus organization of the aneurysm
- 3-D rotational angiography with fly through

“The immediate result (of coiling) is being able to make as big a difference in someone’s life that you possibly can.”

– William R. Protzer, MD