

New procedure helps sinus patients breathe easier

by Frank Radosevich II

For some, a stuffy nose and sinus pressure are just pesky side effects from seasonal allergies or the common cold.

For others, however, they are chronic problems producing a steady stream of irritation and suffering.

Cari Caughey was familiar with that painful reality.

Caughey said for years she would feel pressure building behind her eyes and cheeks, triggering intense pain that would leave her fatigued and in misery.

BREATHING EASIER - Dr. Michael Vidas of Peoria, Ill., inserts a camera into the nasal cavity of patient Carl Caughey before performing a balloon sinuplasty, a relatively new procedure used to correct sinusitis, an often painful inflammation of the sinus membrane lining. CNS Photo by David Zalaznik. "I've always had problems with my sinuses," the 28-year-old Manito, Ill., resident said. "I had really bad headaches and pressure." Sinusitis develops in approximately 31 million Americans each year, resulting in more than 18 million physician visits and more than \$5.8 billion in overall health care costs, according to the American Academy of Allergy, Asthma & Immunology.

The ailment is an inflammation of the membrane lining of any sinus - the straw-sized, air-filled cavities lined

by mucous membranes around and behind the eyes as well as within the cheekbones. The human face has four pairs of sinuses, which warm and moisten the air in the nasal cavity and allow mucus to drain out. The inflammation commonly stems from inadequate draining in the sinuses due to allergies, infection or obstruction. Patients often report congestion, facial pain and pressure, fatigue, headaches, nasal blockage, toothaches and weakened sense of smell. However, rather than chiseling bone or cutting tissue to cure her inflammation, Caughey's physician, Dr. Michael Vidas of Peoria (Ill.) Ear, Nose and Throat, approached her with a new alternative.

After she was anesthetized, Vidas would snake a guiding wire from her nostril to the blocked sinus passageway with the help of an X-ray machine. Then, he would slip over the wire a small catheter - a flexible tube tipped with a deflated balloon. Once the catheter slithered up the wire to the obstruction, Vidas would inflate the balloon with a liquid, stretching bone and tissue and enlarging the sinus.

"What you're doing overall is taking a small pipe and you're making the pipe bigger," Vidas said of the straightforward operation. "It's almost a natural way of doing things. You just make the openings bigger."

The new surgical treatment performed at Methodist Medical Center, called balloon sinuplasty, allows doctors to expand clogged sinus passages without cutting away tissue to open drainage sites. The device, created by a physician who himself suffered from sinusitis, is manufactured by Acclarent Inc. of Menlo Park, Calif.

"It's a wonderful tool to help me deal with more complex patients," Vidas said. "There are some patients that need chronic care, and my experience with them has been that I've been able to maintain the openings in those patients so far. I'm really thrilled with those patients that have really bad, bad disease." In the past, sinusitis patients were limited to only two courses of action - drugs or conventional surgery. The first time around, doctors typically treated the infection with antibiotics or decongestants. Nasal saline or steroid sprays can clear up sinusitis for 75 to 80 percent of patients. Yet, if sinus passages are already too constricted, medication is kept from reaching infected areas, hampering the healing process.

If the problems persist, such as in Caughey's case, patients may develop chronic sinusitis, where symptoms endure more than two months or frequently reappear, inflicting a great deal of discomfort. When medication fails, traditional surgery to remove bone and tissue from the sinuses is usually recommended.

After about a year and a half of ineffective medical therapy, Caughey said she was ready for something new.

"I was about to try anything then," she said.

Technique-wise, the operation is nothing groundbreaking. For decades doctors have performed angioplasties, where a similar balloon-tipped catheter is employed to dilate a narrowed blood vessel. Much like an angioplasty procedure, the balloon is simply positioned, inflated, then deflated and removed.

"Simple is good," Vidas said. "We're not seeing any complications. What you are doing is opening it up, and we have yet to see (any complications) in our 50-some cases."

Conventional surgery - called functional endoscopic sinus surgery, or FESS - is usually invasive. It may lead to postoperative bleeding and pain, which require unpleasant nasal packing where gauze or cotton packs are

pushed into the nasal cavities to stop bleeding. Additionally, the procedure is not always successful, or worse, can cause heavy scarring inside the sinus cavities, necessitating even more surgeries.

Since bone or tissue is rarely cut off, Balloon Sinuplasty can reduce significant bleeding and eliminate uncomfortable packing. The cost of the approximately hour-long operation is comparable to traditional sinus surgery.

Although the procedure is still relatively new and untested (the Food and Drug Administration approved it in March 2005), Vidas has performed around 50 sinuplasty operations since February and said studies show approximately 98 percent of the widened passages remain open. In addition, study patients are also found to have recovered more quickly and required fewer postoperative visits than patients who underwent traditional surgery. In fact, according to Vidas, many of his patients return to normal activities within 24 hours of surgery.

Besides a quicker convalescence, the surgery can boost the effectiveness of medical therapy.

"Her medicines work better because now we have a bigger opening and there is less constriction," Vidas said of Caughey's case. As a result, sprays and solutions can reach all corners of the sinuses and treat infections.

Balloon sinuplasty, however, is not an ideal solution for everyone. Patients with nasal polyps, or growths, as a rule of thumb undergo conventional surgery. And, the balloon catheter does not fit into every sinus.

Yet, by and large, the new procedure is giving most sinusitis sufferers an opportunity to breathe a little easier.

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