Removing a tumor from the base of the skull—through the nose

_Innovative natural orifice surgery requires no incisions_

Chief of Otolaryngology Mark Bianchi, MD and Chief of Neurosurgery Kenneth Lipow, MD, are the first surgeons to perform transnasal (through the nose) natural orifice surgery at Bridgeport Hospital to remove a tumor from a patient’s pituitary gland. The minimally invasive procedure was done using the hospital’s Ear, Nose and Throat (ENT) Navigator system, which provides sophisticated computer guidance to help surgeons operate more safely and precisely without the need for open incisions.

“I collapsed on the floor one day,” says Herman Livingston of Bridgeport, the hospital’s first transnasal natural orifice surgery patient. “My doctor ordered a CT scan and an MRI and that’s when the tumor was found. Then I was referred to Dr. Bianchi and Dr. Lipow.”

The pituitary gland, often described as the master gland of the human body, is located at the base of the skull. It produces many of the hormones that keep the body functioning properly, such as growth hormone, testosterone and estrogen.

Traditional pituitary tumor surgery is done through an open incision using an operating microscope. The otolaryngologist (ear, nose and throat surgeon) is responsible for the approach up to the base of the skull. Once the tumor is reached, the neurosurgeon dissects and removes the tumor, and then the otolaryngologist completes the procedure by closing the incision.

In transnasal natural orifice surgery, the otolaryngologist and neurosurgeon work in tandem using an endoscope (a fiberoptic scope that transmits images to an outside video monitor) and small, equally flexible surgical instruments.

“The minimally invasive transnasal approach keeps the anatomy close to normal on the way in and on the way out,” says Dr. Bianchi. “There’s no incision on the outside of the nose or under the lip as in traditional surgery. This translates into less postoperative pain, less blood loss and a shorter hospital stay for the patient.”

(more)
“I went into the hospital on a Friday and left the following Tuesday,” says Herman, a retired City of Bridgeport employee, who has been married to his wife Marion for 45 years. “I haven’t had any problems since.”

Dr. Lipow adds that transnasal natural orifice surgery also has advantages for the neurosurgeon. “A traditional operating microscope has blind spots that sometimes block the view of some tumors,” he says. “The endoscope gives us a wide, panoramic view of a very confined area. It allows us to look around corners.”

Because of its benefits to the patient, Dr. Lipow believes that natural orifice surgery will be applied to treatments for a growing number of conditions. Dr. Bianchi has already performed natural orifice surgery many times with the ENT Navigator system for nasal and sinus disorders.