



Simon Hanft, M.D.

The Future is Here

Westchester Medical Center Health Network is a national beacon in advancing breakthrough neurosurgical oncology.

Tumors of the brain and spine are among the most complex and consequential medical conditions anywhere in the body. And while the field of neurosurgical oncology is evolving rapidly, there is still much that modern medicine has yet to uncover about the brain's mysteries.

That's why Simon Hanft, M.D., section chief for Neurosurgical Oncology at Westchester Medical Center, part of Westchester Medical Center Health Network, has made it his mission to stay on the leading edge of emerging surgical therapies. "Neurosurgical oncology is a challenging field that necessitates a multifaceted approach," he says. "Having advanced resources improves our ability to remove a tumor safely and effectively, which can improve a patient's overall functionality and chance of survival."

In a word, Dr. Hanft and his team offer hope.

Next-Level Services

For metastatic tumors (that is, tumors that spread to the brain after starting in a different organ), a breakthrough therapy called GammaTile® eliminates the need for patients to return for radiation treatments following a surgical tumor removal.

"During the surgery, we remove the tumor and line the cavity with GammaTile, which delivers targeted radiation to the small area that surrounded the tumor. Data collected nationally so far shows that GammaTile has comparable effectiveness to traditional radiation

but without the hassle and delay of returning for treatments," Dr. Hanft says. Westchester Medical Center is one of the few in New York offering this technology.

For glioblastoma, a rare but aggressive primary brain tumor with generally poor prognoses, a new therapy called Gleolan™ is offering promising potential. The drink-like compound illuminates abnormal tumor cells during surgery more accurately than ever before, allowing surgeons to remove more cancer and spare more healthy tissue. "Glioblastoma is one of the most feared diagnoses in all of medicine," Dr. Hanft says, "but Gleolan has the potential to help us add precious months—or even years—to a patient's chances for survival."

Yet another pioneering technology available at Westchester Medical Center is called Omniscent, a newly FDA-approved software program that has revolutionized the way surgeons understand networks of the brain. Fiber networks are the critical pathways responsible for various bodily operations, such as speech, motor function, and emotional regulation. "Omniscent translates data through MRI scans to show us which areas are most 'eloquent,' meaning most critical in controlling specific functionalities of the body," Dr. Hanft says. That data directs the safest surgical paths for tumor removal.

"This is next-level neuronavigation technology. There's nothing else like it out there, and we're proud to be the only institution in New York and among the first nationally to offer it to our patients," says Dr. Hanft.

The Heart of Care

Despite the heavy nature of his profession, Dr. Hanft remains optimistic about the field and its potential to elevate humanity.

"The positive aspects of this job outweigh the negatives, and you do have to take the good with the bad," Dr. Hanft says. "At the end of it all, what keeps me pushing forward is the potential to significantly help a lot of people who have found themselves in desperate circumstances. That's what makes this worth it."



Brain and Spine Institute

Westchester Medical Center Health Network

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Neurovascular Care Leaders

Westchester Medical Center's comprehensive neurovascular surgery program is equipped to treat the fullest range of diseases affecting the blood vessels of the brain.



Left to right:
Lisha Melathe, PA
Fawaz Al-Mufti, M.D.
Chirag Gandhi, M.D.
Justin Santarelli, M.D.
Gurmeen Kaur, M.D.

Many conditions of the neurovascular system require urgent and expert treatment to prevent long-term or permanent complications. When such an event occurs, patients need experienced care—and fast. In the greater Fairfield/Westchester community, that care is found at Westchester Medical Center, right in Valhalla. The quaternary care medical center is a member of the Westchester Medical Center Health Network.

"We have the region's only comprehensive stroke center and dedicated neuroscience intensive care unit," shares Chirag Gandhi, M.D., Director and Chairman of the Department of Neurosurgery. "Those two resources are the bedrock of our ability to offer personalized, high-quality neurovascular care to our community."

A hybrid operating room, one of the few in the tri-state enables Dr. Gandhi

and his team to perform both open and endovascular (minimally invasive) therapies to maximize each patient's potential for positive outcomes. The interventional treatment of acute ischemic stroke, for example, is a delicate yet powerful procedure to retrieve large blood clots that have



Chirag Gandhi, M.D.

become lodged in the brain—a procedure made possible by the collective knowledge, experience, and facilities needed to act quickly and effectively.

The compassionate, integrated team of multidisciplinary practitioners includes neurosurgeons, vascular surgeons, neuroradiologists, neurologists, and deeply trained nurses and therapists who all join forces in delivering

tailored, nuanced care to each patient. The center's high-volume caseload conditions team members to continually advance their expertise. "Like everything else in life, the more you do something, the better you become at it. Having a

high-volume center means that nothing surprises us. We're all very comfortable treating extremely complex diseases," says Dr. Gandhi.

The team treats both elective and emergency cases, offering primary and secondary opinions for conditions that include acute stroke, brain aneurysm, arteriovenous malformation (AMV), arteriovenous fistula (AVF), cavernous angioma, and intracranial stenosis.

Seeing the Symptoms

There is a saying in the neurovascular community: Time is brain. Millions of brain cells die every second after a stroke or aneurysm has occurred. The difference of mere minutes in receiving vessel-opening treatment can make for drastic differences in outcomes.

But how does one know what qualifies as a neurovascular emergency? Tell-tale signs include, but are not limited to, one-sided weakness, sudden confusion, and difficulty speaking. Other signs might include an extreme headache or a sudden and extraordinary diversion from a person's typical neurological health.

"Each of us knows ourselves the best. It's different for every patient, but anything that seems out of the ordinary should be immediately assessed with medical attention," says Dr. Gandhi.

Pursuit of Excellence

For Dr. Gandhi, neurovascular care is a fascinating field that comes with an enormous potential to explore uncharted territory. Westchester Medical Center's neurovascular program is proud to participate regularly in clinical trials that help forge new frontiers in the treatment and understanding of stroke and aneurysm care. Having the powerful combination of state-of-the-art facilities and therapies, plus a deeply experienced team, makes Westchester Medical Center and the WMCHealth Brain and Spine Institute a formidable force of good in the evolving field of neurovascular disease.

"For much of human history, the brain has been very much a black box. It's an exciting time to be a clinician, researcher, and educator in a field that provides direct care for the most vital organ in the human body," Dr. Gandhi says.