



River Forest Company Leads in Technology for Stroke Diagnosis



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Magnetic resonance imaging, or MRI, is best for diagnosing stroke, according to new guidelines announced earlier this month by the American Academy of Neurology.

That news confirmed what a River Forest-based company has built its business on, namely using data obtained by MRI scanners to assist physicians in the diagnosis and treatment of stroke, the third leading cause of death and the leading cause of permanent disability in the United States.

Founded in 2001, VasSol, Inc. (www.vassolinc.com), has developed technology that non-invasively provides physicians with detailed, quantitative information (velocity, volume and direction) of blood flow through any particular vessel in the brain. (A stroke occurs when blood supply to part of the brain is disrupted, causing brain cells to die.)

Called NOVA (noninvasive optimum vessel analysis), the technology supplies three-dimensional views of the vessel being studied as well as a measurement in cubic centimeters per minute of how much blood is flowing, how fast it is travelling, and in what direction it is flowing.

“NOVA excels as a diagnostic and treatment tool because it provides important quantitative data on what’s happening inside a blood vessel, as well as enhanced vessel visualization that MRI alone can’t provide,” explained VasSol Founder Dr. Fady Charbel, head of neurosurgery at the University of Illinois Medical Center and a River Forest resident. “No contrast injections are required, nor are patients exposed to radiation. And because it has helped patients avoid surgery, it also reduces healthcare costs.”

Increasingly, NOVA — which received FDA clearance in 2001 — is available at hospitals and imaging centers throughout the United States, Canada and Europe. Installations are planned for later this year in South Korea and Israel. Five Chicago area hospitals (including the University of Illinois Medical Center, Rush University Medical Center, and Central DuPage Hospital) use the technology, which has been featured in two National Institute of Health (NIH) stroke-related studies.

VasSol, a privately held company, also has developed NOVA applications to provide blood-flow information about vessels in the kidneys and lower extremities.

“When you can measure blood flow to different organs with a noninvasive, non-radiation tool, physicians can start to ask new questions about the cause of certain conditions,” said Charbel.