

# NEWS RELEASE

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## **Harbin Clinic Neurosurgeon Publishes Research on Vascular Malformations in Brain**

### **For Immediate Release**

ROME, Ga., April 12, 2011 -- The treatment for vascular malformations in the brain will benefit from research by Harbin Clinic Neurosurgeon Andy Stevens which was published in a recent issue of the American Journal of Roentgenology. In partnership with doctors from Oregon Health and Science University and Wake Forest University, Dr. Stevens evaluated the benefits of gamma knife surgery, a stereotactic radiosurgery procedure, in the treatment of arteriovenous malformations and the ability to monitor improvements using spin-labeled MRI perfusion.

According to Dr. Stevens, "Treatment for arteriovenous malformations is usually a long term process. While the benefit of gamma knife [radiation] therapy is generally

accepted, this study quantified improvements in blood flow allowing surgeons to monitor the efficacy and maximize the benefits of ongoing treatment.”

An arteriovenous malformation is a tangle of abnormal blood vessels with anomalous connections between arteries and veins. Arteriovenous malformations can be discovered anywhere in the body including the brain and spine. People may not know they have a brain arteriovenous malformation until they experience symptoms such as headache, seizure, or stroke-like symptoms. In some cases, the abnormal blood vessels may rupture, causing bleeding within the brain (hemorrhage). Specific treatments for these lesions are tailored to each individual patient. This may involve open surgery for resection of the lesion or obliteration of the lesion using focused radiation.

While arteriovenous malformations are not cancers, the equipment to perform stereotactic radiosurgery procedures in Rome, GA is housed in the Harbin Clinic Cancer Center. Stereotactic radiosurgery is performed by a team of specialists that includes a radiation oncologist, a radiation physicist, and a neurosurgeon. In addition to treating arteriovenous malformations, this team also uses stereotactic radiation to treat many types of tumors affecting the brain and spine.

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## **Side Bar:**

Signs and symptoms of a brain arteriovenous malformation include:

- Seizures
- A whooshing sound (bruit) that can be heard on examination of the skull with a stethoscope
- Headache
- Progressive weakness or numbness

When bleeding into the brain occurs, signs and symptoms can be similar to a stroke and may include:

- Sudden, severe headache
- Weakness, numbness or paralysis
- Vision loss
- Difficulty speaking
- Inability to understand others
- Severe unsteadiness

Seek immediate medical attention if you notice any signs or symptoms of a brain arteriovenous malformation. A bleeding brain arteriovenous malformation is life-threatening and requires emergency medical attention.