



Rx FOR SUCCESS

Aneurysms and Vascular Lesions of the Brain

Vascular lesions of the brain can cause seizures and strokes, but many are asymptomatic. They may be discovered incidentally when a brain scan (MRI or CT) is done as part of the work up of other conditions. Risk depends on type, size, and location of the lesion. Lesions include aneurysms, arteriovenous malformations (AVM), dural arteriovenous fistulas (DAVF), cavernous angiomas, venous angiomas, and capillary telangiectasias. Most are congenital in origin, but some develop with aging. Some grow over time. They can rupture and bleed (brain hemorrhage) or they can clot (thrombosis). Such events are often fatal. Survivors frequently have physical or psychological residuals.

- ▶ **AVMs** are abnormal connections between arteries and veins. The annual risk of bleeding (and death) increases with each subsequent bleed. Many are difficult to access surgically. A less deadly AVM is DAVF (aka dural arteriovenous malformation, dural fistula). This is an abnormal connection between an artery and a dural sinus. DAVFs are superficial and easily repaired by surgery.
- ▶ **Cavernous angioma (i.e., cavernous hemangioma, cavernoma)** has an increased risk of bleeding if it grows in size. Bleeding episodes are less deadly than with AVMs, and surgery is less risky.
- ▶ **DVA** (venous angioma) is a collection of enlarged veins. A **capillary telangiectasia** is small lesion made of tiny vessels. As low-pressure structures, these two lesions tend to be asymptomatic and rarely bleed. Most require no treatment.
- ▶ An **aneurysm** is a dilation of vessel, which weakens its wall. A **saccular aneurysm**, also called **berry** due to its shape, is commonly found in the large vessels at the base of the brain (the area known as the Circle of Willis). Most non-traumatic subarachnoid hemorrhages are due to rupture of a saccular aneurysm. Risk of rupture depends on the location and size of the aneurysm. Aneurysms that have already bled are at high risk for bleeding again. A **fusiform aneurysm** is a dilated segment of the vessel. They tend to clot rather than rupture.

Treatment may be observation, surgery, gamma knife, radiation, or endovascular procedures, such as coiling or embolization. Surgery is curative. Resolution after radiation is gradual, taking up to 2-3 years, and the risk for hemorrhage continues during this time. Endovascular neurosurgery uses catheters to deliver coils or glues or particles that obliterate the vascular lesions. Embolization may not lead to complete occlusion and may be combined with surgery or radiation. Treatment itself may result in substantial morbidity and mortality so the risk of treatment must be balanced against the risk of bleeding. Deep lesions, such as those in the midbrain or lower brain stem, may be inoperable.

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UNDERWRITING VASCULAR REGIONS OF THE BRAIN

- ▶ Asymptomatic at application, minimal residuals from event or treatment
- ▶ No evidence of progression

<p>Cavernous angioma</p> <ul style="list-style-type: none"> ▶ Single, small, incidental, non-bleeding, asymptomatic, not in brain stem or thalamus ▶ Surgery by craniotomy, recovered ▶ Coils, embolization, gamma knife, or radiation with recovery documented by obliteration on imaging ▶ Others 	<p>Usually No Rating</p> <p>No Rating</p> <p>No Rating</p> <p>Individual Consideration</p>
<p>Capillary telangiectasia or venous angioma</p> <ul style="list-style-type: none"> ▶ 1–2 ▶ Others 	<p>No Rating</p> <p>Individual Consideration</p>
<p>Berry aneurysm</p> <ul style="list-style-type: none"> ▶ Surgery by craniotomy, recovered ▶ Coils, embolization, gamma knife, or radiation with recovery documented by obliteration on imaging ▶ Single, anterior (carotid) circulation small <7mm, stable 2 years ▶ Others 	<p>No Rating</p> <p>No Rating</p> <p>Table B</p> <p>Individual Consideration</p>
<p>Fusiform aneurysm or AVM, single</p> <ul style="list-style-type: none"> ▶ Surgery, recovered ▶ Coils, embolization, gamma knife, or radiation with recovery documented by obliteration on imaging ▶ Others 	<p>No Rating</p> <p>No Rating</p> <p>Individual Consideration</p>
<p>Others: multiple episodes, multiple aneurysms, significant residuals (physical or psychiatric)</p>	<p>Decline</p>

We also recommend reviewing *Rx for Success* on Carotid Ultrasound and Brain Scan and TIAs and Strokes.

To get an idea of how a client with a vascular lesion of the brain would be viewed in the underwriting process, use the Ask “Rx”pert Underwriter on the next page for an informal quote.

Ask “Rx”pert Underwriter (Ask Our Expert)

After reading the *Rx for Success* on Vascular Lesions of the Brain, use this form to Ask “Rx”pert Underwriter for an informal quote.

Producer _____ Phone _____ Fax _____
 Client _____ Age/DOB _____ Sex _____

If your client has a history of vascular lesions of the brain, please answer the following:

1. What type is it?

- Berry aneurysm
- Fusiform aneurysm
- AVM
- Cavernous angioma
- Capillary telangiectasia
- Venous angioma
- Other. Please specify _____

2. Please provide diagnosis date.

3. Were there other events, such as clot, hemorrhage, or stroke?

- Yes. Please give details. _____
- No. Always asymptomatic.

4. Has there been any treatment, such as clipping, coiling, embolization, gamma knife?

- Yes. Please give details. _____
- No

5. Is your client on any medications?

- Yes. Please give details. _____
- No

6. Has your client smoked cigarettes in the last 12 months?

- Yes
- No

7. Does your client have any other major health problems (e.g., heart disease, seizures, psychiatric illness, etc.)

- Yes. Please give details. _____
- No

PLEASE PROVIDE A COPY OF LATEST BRAIN SCAN.