Underwriting Cerebral Aneurysms

Uncommon but Dangerous

By Jilian Sakall, R.N
MetLife Underwriting Consultant

Michael, 52, a hospital administrator, has applied for life and disability income insurance with a 90-day elimination period (EP). He has a long history of poorly controlled hypertension and quit smoking 10 years ago.

Six years ago Michael went to the emergency room complaining of slurred speech, a severe headache and an unsteady gait. Imaging revealed a large bleeding aneurysm of the middle cerebral artery and indicated the aneurysm was due to atherosclerosis or plaque build-up in the arteries.

He had an emergency clipping procedure and has recovered with mild residual neurologic deficits, including mild difficulty walking. Since the procedure, his blood pressure has been well-controlled, and he no longer has headaches.

Renay, 44, a nurse practitioner, has also applied for life and disability coverage with a 90-day EP. Six years ago she was diagnosed with a cerebral artery aneurysm which was discovered on a CT scan done for mild head trauma. Shortly after diagnosis she underwent elective endovascular cerebral artery aneurysm coiling. Renay recovered quickly and without complications.

Underwriting Outcomes

Life
Michael qualifies for a low sub-standard rating because it has been more than two years since definitive treatment of his aneurysm and he has persistent residual symptoms. Because his aneurysm was atherosclerotic, it is likely that plaque has formed in other arteries and may lead to heart attack or stroke in the future.

Renay qualifies for a standard rating because there are no residual symptoms or complications in the more than two years since her aneurysm coiling. Because this aneurysm was likely congenital, there is a low risk of recurrence.

Disability
Michael does not qualify for a policy due to his residual problems with walking.

Renay qualifies for disability coverage with an extra premium and a five-year benefit period limit because of the low but persistent risk of recurrence.

Here are questions to ask your clients who have been diagnosed with cerebral aneurysms:

- When was your aneurysm diagnosed?
- Has your aneurysm ruptured?
- Has intervention been required for your aneurysm? If so, was it an emergency?
- Do you have any ongoing neurologic problems as a result of your aneurysm or as a result of aneurysm intervention?
- When was your most recent brain imaging?
- Was your aneurysm caused by another medical condition, or was it thought to be present from birth (congenital)?
Underwriting Cerebral Aneurysms
Uncommon but Dangerous

Continued >

What is a Cerebral Aneurysm?
Cerebral aneurysms are weakened areas in the walls of blood vessels in the brain that cause a bulge or ballooning of the vessel. These aneurysms can rupture, causing stroke-like symptoms. They are usually caused by one of the following:

- Traumatic injury
- Atherosclerosis
- Infection
- Congenital malformation

Cerebral aneurysms are relatively uncommon, affecting only five percent of the population. A very small number of these rupture or cause symptoms.¹

Neurological examination may show deficits commonly associated with cerebral aneurysm rupture, such as:

- Difficulty with speech
- Weakness in the extremities
- Abnormal sensation
- Abnormal eye movements

Imaging tools such as CT or MRI of the brain, CT angiography or cerebral angiography are used to diagnose the condition and to measure and map the aneurysm in preparation for treatment. Certain small, unruptured aneurysms, if discovered incidentally, may not be treated right away, but instead may be followed with MRI or CT scans. Larger, ruptured or symptomatic cerebral aneurysms are treated either with open surgery (known as clipping), or endovascular techniques like coiling, when a small catheter is used to deliver metal wire coils into the aneurysm to induce clotting. Both methods decrease the chance of the aneurysm rupturing in the future.

Morbidity and mortality risks arise from the possibility of aneurysm rupture and from the potential complications of treatment. Upon rupturing there is a 30-40 percent chance of death and a 20-35 percent chance of moderate to severe brain damage.² Before and after surgical treatment, medications to control blood pressure, blood vessel spasms, seizures and blood clotting are commonly used to lower the risk of rupture prior to surgery and to allow the body time to heal after treatment. Following intervention or rupture, vasospasm, or blockage of the artery due to spasm, is a common complication and may lead to an ischemic stroke, causing further brain damage.

The cases presented are hypothetical. Actual underwriting decisions will be based on a review of the complete medical history.

2. What you should know about cerebral aneurysms: www.strokeassociation.org