



# Case #85

NAME Educational Activities Committee

Submitted by:

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Image 1



Image 2

1. A 50-year-old female with a medical history of hypertension, alcohol abuse, and migraines is found unresponsive in her front yard. She is pronounced dead at the scene. Based on the autopsy findings, what is the most likely cause of death?

- Mycotic aneurysm
- Saccular aneurysm
- Fusiform aneurysm
- Infundibular aneurysm
- Pseudoaneurysm

Answer...

B. Saccular aneurysm (CORRECT ANSWER, 91.03% responses)

Of the given choices, a saccular (or “berry”) aneurysm was the only one consistent with the autopsy findings and the history of smoking, hypertension, and migraines. Smoking in conjunction with hypertension contribute to a 15-fold subarachnoid hemorrhage risk. Additionally, the aneurysm has the classic sac-like or berry appearance and histologically was a true aneurysm involving all three layers (intima, media, adventitia).

Other responses:



#### A. Mycotic aneurysm

Unlike saccular aneurysms which can be found at branching points of the Circle of Willis, mycotic aneurysms are peripherally located. Additionally, a history of infective endocarditis should be present.

#### C. Fusiform aneurysm

Whereas saccular aneurysms are berry-like protrusions of the vascular wall, fusiform aneurysms are cylindrical and involve a short length of the vessel. Fusiform aneurysms tend to have an atherosclerotic etiologies.

#### D. Infundibular aneurysm

This is technically not an entity. An “infundibulum” is a funnel-shaped widening or dilation of the base of a cerebral artery, rather than an outpouching of a vessel wall. Infundibula do not pose a risk for rupture.

#### E. Pseudoaneurysm

Intracranial pseudoaneurysms are rare (1% of all intracranial aneurysms), and most often associated with trauma but may also be seen in infections, surgical complications, and Marfan’s syndrome. True aneurysms involve all three layers of the vessel, whereas at least one would be lacking in a pseudoaneurysm.

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