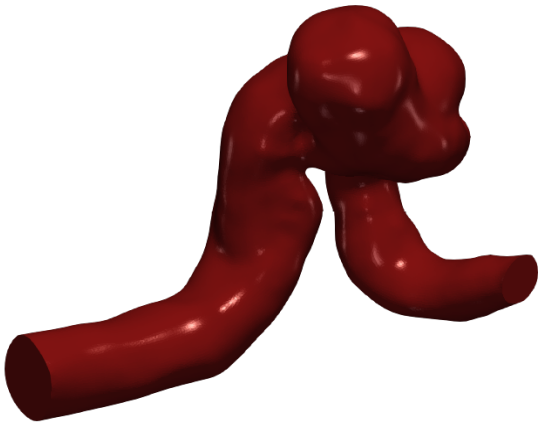
Vascular Model Repository Specifications Document



0204_H_CERE_CA

Legacy Name: ANR117_Stable

Model added: 21 Jul 2023

Species	Human
Anatomy	Cerebral
Disease	Cerebral Aneurysm
Procedure	None

Clinical Significance and Background

Cerebral

The cerebral arteries are involved in providing blood to the brain and the spine. They provide about 20% of the blood to the brain while the carotid arteries provide the other 80%. The two vertebral arteries start at the subclavian arteries near the collarbone and run up the left and right sides of the spinal column in the neck. At the base of the skull, the two vertebral arteries then merge into one artery called the basilar artery which is the main supply of blood to the brain stem and also supplies blood to the brain itself through the Circle of Willis.

Cerebral Aneurysm

A cerebral aneurysm, also known as a brain aneurysm, is a weakened or thin spot on an artery in the brain that bulges and fills with blood. If left untreated, it can rupture, leading to a hemorrhage, potentially causing serious health issues such as hemorrhagic stroke, brain damage, coma, or even death. While some small aneurysms may not cause immediate problems, they have the potential to rupture and cause bleeding within the brain or surrounding areas. Symptoms of an unruptured aneurysm may include pain behind the eye, numbness, weakness, vision changes, and more. When an aneurysm ruptures, it presents with a sudden and severe headache, double vision, nausea, stiff neck, and other alarming symptoms. Immediate medical attention is crucial if any of these symptoms occur.

Cerebral aneurysms can be classified into three types: saccular, fusiform, and mycotic. The saccular aneurysm is the most common form and is typically found on arteries at the base of the brain. They can be categorized by size as small (less than 11 mm), large (11-25 mm), or giant (greater than 25 mm).

Clinical Data

General Patient Data

Age (yrs)	65
Sex	Female

Specific Patient Data

Aneurysm Location	Left Cavernous ICA

Diabetes Mellitus	No
Hypertension	No
Hyperlipidemia	Yes
Smoking	No
Family History of Cerebral Aneursym	No

Notes

Categorized as a stable aneurysm (no increase in size by at least 1mm in two or more dimensions between checkups). Aneurysm located in left cavernous ICA. Paired with growing aneurysm 0203_H_CERE_CA. See below for information on the image data.

Image Type: VTI

Image Source: Stanford Health database

Publications

There are no publications associated with the featured model.

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