Computational investigation of parent artery flow reversion for basilar top aneurysm

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Large basilar top aneurysms can show successive growth and excert considerable brain-stem compression. Therapeutic vessel occlussion with basilar artery flow reversion may represent the best treatment option in some cases. Occlusion of the basilar artery or both vertebral arteries reverses blood flow in the basilar artery and thereby is believed to relieve pressure and stress at the ostium of the aneurysm. Due to the decreased stress, aneurysm growth ceases and the aneurysm may eventually trombose. In this talk we will consider such a case through analysis of computations based on patient images before and after treatment. We investigate the hemodynamic consequences of the treatment and discuss whether the consequences of closing the parent artery is computable.

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