

Abstract Submitted
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Computational studies on characteristic fluid behavior in the stented cerebral aneurysm MIKI HIRABAYASHI¹, University of Geneva, MAKOTO OHTA², DANIEL A. RÜFENACHT³, Hospital University of Geneva, BASTIEN CHOPARD, University of Geneva — We present a computational analysis of the fluid behavior in the stented aneurysm. It is important to reveal the complex mechanism of the velocity reduction of the flow in the stented aneurysm in order to design the effective stent, which is a tubular mesh of wires placed for the treatment of the cerebral aneurysm. To understand the effect of a stent we already proposed a qualitative analysis of the flow pattern in the stented aneurysm. Here we present a quantitative analysis of the transition of the pressure and the shear stress caused by the changes of the flow pattern to verify the velocity reduction mechanism of the stent. We expect that our study will lead to a new suggestion for the effective treatment of the cerebral aneurysm by the stent.

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