LATTICE-BOLTZMAN MODELING OF POROUS MEDIUM: APPLICATION TO MODELING FLOW DIVERTER STENTS

G. A. Boroni, J. Dottori, A. Clausse, I. Larrabide

[*] Pladema - CONICET - UNICEN
Pinto 399, Tandil, Argentina
gboroni@exa.unicen.edu.ar, jdottori@exa.unicen.edu.ar, clausse@exa.unicen.edu.ar,
larrabide@exa.unicen.edu.ar
www.pladema.net

ABSTRACT

The treatment of Intracranial Aneurysms (IA) with Flow Diverter (FD) stents is becoming more common every day. Therefore, there is a need for understanding their behavior in a predictive way. This paper presents the implementation and the application of a Lattice-Boltzman porous media model previously described, for modeling cerebro-vascular Flow Diverter devices stents. Numerical experiments where prepared using a Finite Volume software and used to adjust the numerical parameters of the LBM model. Preliminary results show good agreement between both models.

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