

Stiffness Evaluation Method and Simulation for Pulsation Analysis of Artery considering Its Deformation

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Artery is one of the typical organs in which many diseases are observed, and it is said that the suitable diagnosis and evaluation of the artery is useful in the health improvement of human. In this paper, a research result on new diagnosis development of the artery is shown by using an artificial system of circulatory organ, which was developed for this research. The developed diagnosis method is verified by using the artificial system. Furthermore, the coupled problem of solid-liquid is analyzed on the organ for the evaluation of the artery. Here, the validity of the stiffness evaluation of the artery is discussed with the possibilities and the problems of the coupled analysis.

Keywords: Pulsation Analysis, Coupled Problem of Solid-liquid, Artery, Diagnosis